TWENTY-THIRD ANNUAL REPORT

# UNIVERSITY OF MARYLAND

## EXTENSION SERVICE

FOR THE YEAR 1937

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Cooperative Extension Work In Agriculture and Home Economics,
Extension Service, University of Maryland, and the
United States Department of Agriculture
Cooperating.

T. B. SYMONS, Director

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Distributed in furtherance of acts of Congress of
May 8 and June 30, 1914.

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## LETTERS OF TRANSMITTAL

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DR. H. C. BYRD,
*President, University of Maryland:*

I have the honor to present herewith the Twenty-Third Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1937, together with a financial report for the fiscal year ending June 30, 1937.

Respectfully submitted,

THOMAS B. SYMONS,
*Director, Extension Service.*

January 1, 1938.

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TO HIS EXCELLENCY HARRY W. NICE,
*Governor of Maryland:*

In accordance with the requirements of the Act of Congress approved May 8, 1914, and known as the Smith-Lever Act, I have the honor to transmit herewith the Twenty-Third Annual Report covering the work of the Extension Service of the University of Maryland, in cooperation with the U. S. Department of Agriculture, for the calendar year 1937, together with a financial report for the fiscal year ending June 30, 1937.

Respectfully submitted,

H. C. BYRD,
*President.*

January 4, 1938.

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OF THE

# UNIVERSITY OF MARYLAND

## EXTENSION SERVICE

FOR THE YEAR 1937

By THOMAS B. SYMONS, Director

E. I. OSWALD and MISS VENIA M. KELLAR, Assistant Directors

## INTRODUCTION

AS the representative of the University of Maryland and the United States Department of Agriculture, the Extension Service had an important part in helping farm families to work toward a solution of the problems confronting them during 1937, and also toward a sound long-time program for agriculture and rural homes. Through its specialists, its agents in all counties, through local leaders and with the cooperation of numerous organizations, it made available the findings of the University and other agencies. It took a leading part in explaining the agricultural conservation program and supervised its administration; it cooperated also in programs carried on in Maryland by various other agencies.

The many projects and programs have become so well established and the extension workers have become so much an accepted part of farm and home affairs in the State and in the respective counties that it is scarcely possible to evaluate the sum total of service rendered to the diversified agriculture and rural life. Only some of the broader aspects can be set forth in a brief report.

The year as a whole can be classed as fairly favorable to the agricultural industry in the State. Had the promise of the first half of the year been maintained until the end, it would have been much more favorable, but the last six months, or a

little less, registered a decline, especially in prices for some of the important farm products. As a result, the total value of farm production was not as great in 1937 as it was in 1936. The value placed on farm crops for the year in preliminary estimates is some $8,000,000 less than last year, which is still well above the value in 1935 and years immediately preceding.

## Extent of Activities

IT is difficult to measure, and even more difficult to express, the extent to which the activities of the Extension Service are reaching the people throughout the State. Without question, the effect of so-called "spread of influence," the adoption of practices and methods advocated by extension workers because of results others have obtained, rather than because of direct contact with the workers, is by no means inconsiderable. Some figures taken from a tabulation of reports made by extension agents will give a partial conception of the numbers who are being reached in one way or another by extension activities.

During the year, the county agents and home demonstration agents made 24,843 farm or home visits to 12,013 different farms or homes. They received 75,601 calls at their offices on matters pertaining to extension work and 50,474 telephone calls of a similar nature. They wrote 66,568 individual letters and 3,424 different circular letters. They distributed 65,789 bulletins containing information on subjects in which those receiving them were particularly interested. The attendance at 7,705 method demonstrations conducted by extension workers was 111,270, and the specialists and agents participated in 5,309 other meetings of an extension nature, which were attended by 394,538 persons.

## Reorganization

LATE in the year an effort was made by University authorities to more closely coordinate the research, extension, regulatory, and resident instruction work of the various departments. Each department was surveyed with a view to utilizing all of the available man power and resources more efficiently and integrating all phases of work, both within the departments and between the related departments.

An advisory Council, composed of the heads of the main in-

dustry departments, was set up for the purpose of assisting in determining policies and promoting coordination of activities. The Director of Extension serves as chairman of this group.

### Advisory Councils

A further step designed to more closely articulate the work of the University with the major phases of agriculture in the State was in process of development at the end of the year. State Advisory Councils, representing the principal industries such as livestock and dairy, poultry, agronomy, horticulture, women's interests, etc., were being formed, for the purpose of consulting with and advising the respective departments of the University. These Councils will be made up of from 25 to 30 leading representatives of the different lines of agriculture.

Conferences of the Councils and workers in the respective lines at the University will be held from time to time, when research, extension and regulatory activities, both those in progress and those proposed, will be considered. Suggestions and constructive criticisms will be solicited in order to guide the workers in various fields.

### Self-Improvement for Extension Workers

AMONG the outstanding developments of the year was the provision of opportunities whereby those engaged in extension work can increase their efficiency and fit themselves to better meet the expanding field for activities. Advanced courses were offered as a part of the regular curriculum of the Summer School at the University of Maryland, which were designed especially to aid workers in improving the programs in which they are engaged by giving them an opportunity to improve themselves through graduate study. A special effort was made to assist agents, specialists and others in their present positions and to furnish them with those social and economic backgrounds, new approaches, and recent developments now essential to most effective service in the ever-changing field of extension work.

It is confidently expected that as these courses are maintained and expanded, their effect will be reflected in the scope and efficiency of extension work throughout the State, and in

other states. The assistance rendered by the United States Department of Agriculture Extension Service was invaluable.

*Extension workers who took special courses, or gave instruction, at the 1937 University of Maryland Summer School. From left to right (back row)—C. B. Lanford, W. B. Posey, M. S. Downey, J. Z. Miller, John Carter, Reuben Brigham, U. S. D. A., Kenneth W. Baker, C. Z. Keller, A. B. Hamilton, Ethel Joy, and C. B. Smith and M. C. Wilson, U. S. D. A. Front row (left to right)—P. E. Clark, Helen Smith, Ruby Kirk, Eleanore Williamson, Miriam Parmentar, Meta E. Grace, Helen Schellinger, Gladys Gallup, U. S. D. A., and Ethel Regan.*

## AAA Program

THAT the program carried out under the Soil Conservation and Domestic Allotment Act was better adapted to conditions in Maryland than those of previous years was evident from the large increase in number of farmers participating. Approximately 18,000 farmers, representing 63 per cent of the farm land in the State, signed work sheets for their farms, compared with about 15,000 farmers participating in the program the preceding year. Payments to those who participated are estimated at approximately $1,500,000.

Launching of the conservation program each year involves an intensive educational campaign to inform farmers as to its purpose, aims, provisions, and numerous questions essential to enable them to determine just how it will apply to their individual farms and what is required for participation. Similar campaigns are necessary from time to time throughout the year, as the season for different steps in the program arrives. Particularly with the agents in the counties, but also with the specialists in most lines, the conservation program was a major activity. The effectiveness of the educational and supervisory work done by Extension workers is reflected in the fact that nearly one-half of the actual farmers in Maryland participated in the 1937 program, and nearly two-thirds of the farm land was included.

The conservation program of 1937 permitted closer coordination and integration with various projects and programs of the Extension Service than was true of adjustment programs of preceding years. For that reason, there was no clear line of demarcation between the two and they served as complements and supports to each other. Many of the soil-conserving practices required for participation in the new program were practices which specialists and agents had been advocating for years. The new program served as an impetus to their work, and their previous efforts paved the way for the new program. As a result, greater results were accomplished in a number of phases of the extension program than is true in most years.

## Discussion Groups

SUBSTANTIAL progress was made in meeting the need and desire of people to come together by groups or communities for the purpose of discussing problems and programs affecting their welfare. Such community conferences and discussions have been a definite part of the agricultural conservation programs for the last few years, but there has been an evident desire for similar discussion of other problems, particularly in the field of sociology.

Although this work is still in the pioneering stage, it has reached a point where a number of organized groups are ready to participate actively. The State Grange and the Maryland Farm Bureau Federation are committed to promoting discussion groups as a definite part of their year's program and have

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asked for help in a number of localities. Through the cooperation of existing organizations, the specialists to whom the development of discussion groups has been assigned, and the specialists in rural sociology, both the interest and activity in this field are developing rapidly, and it promises to be an exceptionally important phase of extension work.

## Rural Ministers' Conference

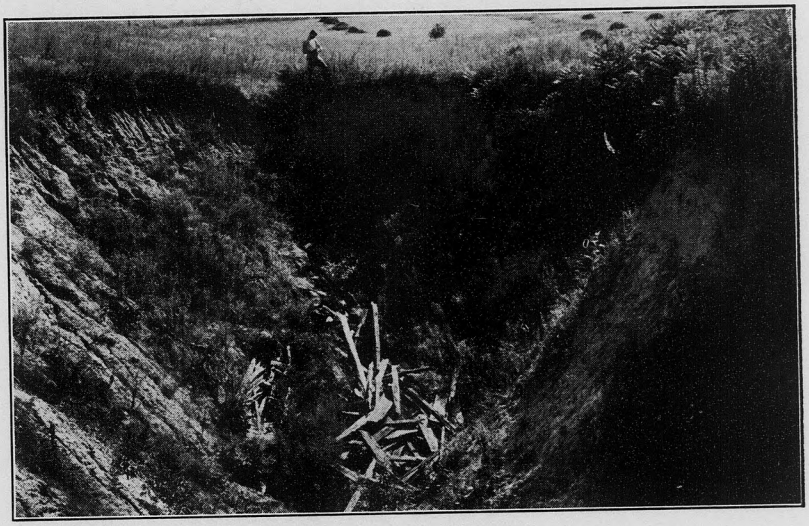
CLOSELY allied with the discussion group development was a three-day conference on the problems associated with the rural church, which was held at the University of Maryland in September, under the auspices of the Extension Service. It was attended by 45 clergymen, representing the 10 major denominations having large rural constituencies in the State, and by 12 laymen. They listened to addresses by such men as Dr. Joy Elmer Morgan, Dr. Owen Lovejoy, Dr. Carl C. Taylor, Dr. Paul L. Vogt, H. W. Hochbaum, and Dr. C. A. Hauser on problems and trends of vital interest to rural life, and then joined in animated discussions along the same general lines. Those in attendance requested unanimously that a similar opportunity be provided next year.

## Rural Electrification

AS a result of the cooperation of farm organizations, the Extension Service, and public utility companies with the Rural Electrification Administration, Maryland improved her standing among the states as to the number of farms served by electricity. Much of the credit for this development may properly be ascribed to the effectiveness of an extension project in the form of electrification schools. In this way, thousands of the so-called lower-level farmers were reached. The principles of obtaining good lighting, what constitutes safe and adequate wiring, how electricity fits into the home and farm management program, where it can save money, and how to figure comparative costs were actually demonstrated to rural people.

A Rural Electrification Administration project developed in Southern Maryland, embracing St. Mary's, Charles and Prince George's Counties, should by June, 1938, make electricity available to 600 more rural families.

## Soil Conservation



*Small gullies may not appear as a serious menace, but if nothing is done about them, they may become the sort of gully shown in the picture below. The Extension Service is cooperating with the Soil Conservation Service in demonstrating approved methods for stopping the growth of gullies, large and small, and preventing other types of erosion.*

THE EXTENSION SERVICE cooperated actively in the program being carried out by the Soil Conservation Service. The extension demonstration projects have been developed to

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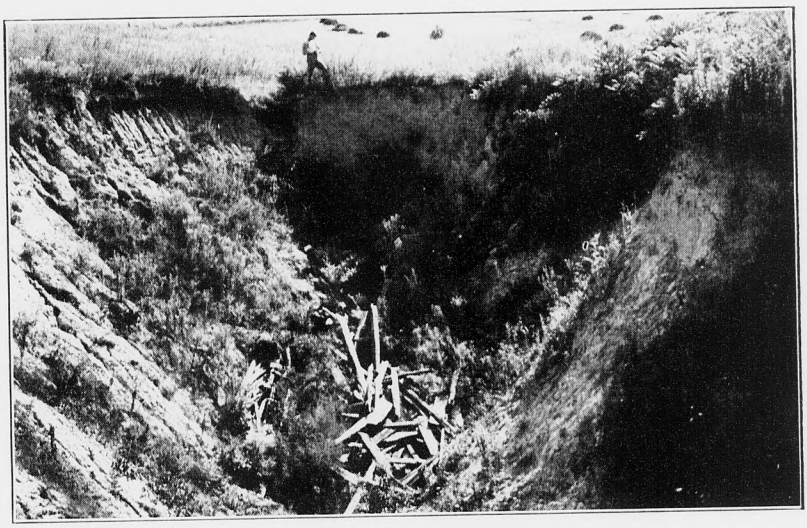

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the point that they are of immense value to the extension workers and the interest in soil conservation among farmers has been aroused to the point where they are ready for active efforts. A law enacted at the last session of the Maryland General Assembly provides a means whereby the farmers in a given area or community may cooperate with the Federal and State agencies in organized soil conservation activities.

## Marketing

UNUSUAL problems developed in connection with marketing some of Maryland's farm products, particularly canning crops. Due to a strike in the canning industry at the time the snap bean crop was ready for harvest, the growers were threatened for a time with almost total loss. Through the effective cooperation of the Hillsboro-Queen Anne Cooperative, the Extension Service, the growers, and certain buyers, a market was found for $250,000 worth of snap beans, and the crop was handled without loss to growers, and, in fact, with some gain.

In order to be prepared for any similar emergency, in case it should arise at the time the tomato crop was ready for canning, the Extension Service cooperated with other organizations and agencies in developing a plan and the necessary organization for prompt action. With the exception of a serious situation that arose in an area which produces tomatoes principally for market as "green wraps," no emergency occurred. The county agent was a potent factor in preventing serious development in the area where growers had difficulty in disposing of their crop.

The Service cooperated with the Federal Surplus Commodities Corporation in the purchase of substantial quantities of a number of products, including eggs, potatoes, sweet potatoes and apples.

Enactment of a law by the Maryland General Assembly which requires that all persons, firms or corporations, other than producers, who are engaged in the business of buying, selling, or transportation of poultry, shall be licensed by the State Board of Agriculture is intended to protect poultry producers of the State against the scourge of poultry thieving.

### Drainage Camps

AN extensive drainage project under the supervision of the Extension agricultural engineer and in cooperation with the CCC Camps, was conducted on the Eastern Shore of Maryland and proved of great value to that area. During the first nine months of 1937, these camps cleared 2,250,943 square yards of ditch banks and channels and excavated 393,822 cubic yards of material.

### Other Federal Programs

BECAUSE of their particular training, their location in all counties, and their understanding of conditions, extension workers have given especially valuable cooperation in a number of programs being carried out in Maryland by Federal agencies. It has been the policy of the Service to render aid in all programs affecting the welfare of rural people. The program of Rural Rehabilitation, later known as the Farm Security Program, has operated in conjunction with the Extension program, with both administrative officials and the agents in the counties participating actively. Extension workers have had a prominent part in establishing a state-wide recreational program in conjunction with the WPA. Other Federal agencies with which the Service cooperated include the Federal Farm Credit Administration, Federal Relief Administration, and Land Utilization Service.

### Rural Women Active

EACH YEAR REGISTERS increased interest and enthusiasm among the women of the State in projects affecting the rural home and rural life. They call for a constantly broadening program and are able to assume more and more responsibility in carrying it out.

Their work this year was featured by inauguration of a long-time program on "Better Family Living," which does not deal entirely with home economics subjects, but includes cultural subjects also, such as reading, music, arts and recreation.

For the first time, home management work was carried on throughout the year under the supervision of a full-time specialist.

The Rural Women's Short Course, held at the University for the fifteenth consecutive year, continued to grow in interest

and inspiration and it has become necessary to place a limit upon attendance.

## Livestock

AN expanded livestock program made excellent progress during the year, in keeping with the active interest and cooperation of leaders in that important phase of Maryland agriculture. A great stimulus was given to the livestock exhibits at fairs by a recent act of the legislature, which created a Fair Board and provided certain funds for its disposal. The effect was particularly noticeable in the draft horse exhibit, the fair at Frederick having the largest number of purebred Percheron horses exhibited this year of any fair east of Ohio. Timonium, Hagerstown and Olney had wonderful draft horse exhibits.

Interest in beef cattle continued to grow rapidly. Organization of a Hereford Breeders' Association was one of the significant developments.

## Poultry

POULTRYMEN were active in forwarding all phases of their industry and the year recorded a number of important accomplishments through their efforts. The annual meeting of the International Baby Chick Association was brought to Baltimore and was attended by more than 1,500 Maryland poultrymen and farmers. Extension workers had a prominent part in planning for this event and cooperated in the activities of State, regional and national organizations of the industry. Progress made in the State and National Poultry Improvement Plan was a feature of the year's work.

## Crop Yields and Values

MARYLAND farmers experienced in 1937 a fairly favorable season for production of most of the principal crops. In the case of a few important crops, unfavorable conditions at critical times, together with serious damage by disease, resulted in greatly reduced production and inferior quality.

In spite of the larger production, however, the total value of farm crops and commercial truck crops was considerably less than in 1936, and the value of fruits was a little greater. The difference was due to the less favorable prices received for some of the major crops, especially toward the end of the year.

Preliminary estimates made by the Division of Crop Estimates of the U. S. Department of Agriculture place the total value of Maryland crops in 1937, with duplications eliminated, at $49,979,000. This compares with $58,246,000 in 1936, and $46,283,000 in 1935. To the value for 1937 should be added approximately $1,500,000 which was earned by about 18,000 farmers who cooperated in the conservation program. Similar amounts were paid to farmers who cooperated in the programs of 1936 and 1935, although the number participating last year was considerably larger.

The corn crop is valued at $12,446,000, which is more than $5,000,000 less than in 1936. With an increase of 5,000 acres and a total production almost 200,000 bushels greater, a price of 67 cents a bushel, compared with 97 cents the year before, accounts for the reduced value of the crop.

Wheat acreage was increased to 476,000 acres, which is 27,000 acres more than in 1936, but with a yield of 19 bushels to the acre compared with 20 bushels in 1936, the total value of the crop is only a little greater. The price remained about the same.

There was a decrease of 1,000 acres in the acreage of oats, the yield per acre was slightly less than the preceding year, and the price was 43 cents compared with 51 cents. The value of the crop is placed at $466,000 in 1937 and $577,000 in 1936.

For some reason, possibly due to the larger acreage of wheat, the acreage of barley did not show the increases evident the last few years. Due to a yield of 33 bushels to the acre, compared with 25 bushels, the total production was 188,000 bushels greater than in 1936. With the price remaining approximately the same, the value of the crop exceeded that of the year before by $114,000.

Potatoes was one of the crops which resulted in a large decrease in value to growers. With an increase of 2,000 acres devoted to the crop, and a yield per acre of 116 bushels, the total crop was 540,000 bushels larger than in 1936. A price of 60 cents a bushel, compared with $1.08 the preceding year, gave a value for the crop of $2,088,000, compared with $3,175,000 in 1936.

Prices and yield were both less favorable for growers of sweet potatoes. Acreage was the same as last year, but total

production was 200,000 bushels less and a price of 65 cents compared with 86 cents gave a reduction of $382,000 in the total value of the crop.

The year 1937 was generally favorable for hay and forage crops. Possibly due to conservation programs, the acreage in tame hay was a little larger and the yield exceeded that of 1936 by 191,000 tons. Even with a price of $11.60 a ton compared with $15.10 the preceding year, the total value was $6,009,000 in 1937 and $4,938,000 in 1936.

Acreage of tobacco was 1,500 acres less than in 1936 and a yield per acre of 700 pounds gave an estimated total of 25,200,000 pounds. At an estimated price of 20 cents a pound, the total value of the crop is $2,648,000 less than last year. It should be remembered that the 1937 tobacco crop is not placed on the market until late in 1938, so that price conditions and total value may be materially different from the estimate.

The commercial apple crop was more than 800,000 bushels larger than in 1936, but a price of 65 cents a bushel, compared with 89 cents a bushel, resulted in only a little greater total value.

Increased production, lower prices and only $75,000 greater value for the crop than in 1936 were the conditions in the peach industry.

Due to a small increase in acreage, much better yield, and only slightly lower prices, the strawberry crop had a value of $1,355,000, compared with $845,000 the preceding year.

Growers of snap beans and green peas for canning fared better than last year, particularly in the case of green peas, but growers of tomatoes for canning experienced much less favorable conditions. The total value of the green pea crop is estimated at $1,044,000, compared with $563,000 for the small crop of 1936, and it approaches the value of the 1935 crop. Acreage in tomatoes was increased 4,200 acres, but an average yield of only 2.8 tons to the acre gave a total production of 165,800 tons. At an average price approximately the same as in 1936, the value of the crop was $2,189,000, compared with $3,386,000.

The numbers of livestock on farms did not change materially from recent years. Renewed interest in production of some kinds of stock was very evident, but was focused more particularly upon improvement in quality, rather than on greatly in-

creased numbers. Prices for fat cattle reached a very high point during the year, but declined in the later months.

A record of the acreages, yields and values of the principal crops of Maryland is included in this report. These estimates are furnished by the Bureau of Economics of the U. S. Department of Agriculture, cooperating with the Extension Service. For the sake of comparison, the corresponding figures for two preceding years are given. The estimated numbers of livestock on farms January 1, 1938, and their values are given also.

## PRODUCTION AND VALUE OF CROPS

| Crop and Year | Acres | Per Acre | Total | Unit | Per Unit | Total | Value Per Acre |
|---|---|---|---|---|---|---|---|
| **Corn** | | | | | | | |
| 1937 | 516,000 | 36.0 | 18,576,000 | Bus. | .67 | $12,446,000 | $24.00 |
| 1936 | 511,000 | 36.0 | 18,396,000 | " | .97 | 17,844,000 | 34.92 |
| 1935 | 516,000 | 34.0 | 17,544,000 | " | .76 | 13,333,000 | 25.84 |
| **Wheat** | | | | | | | |
| 1937 | 476,000 | 19.0 | 9,044,000 | " | 1.06 | 9,587,000 | 20.14 |
| 1936 | 449,000 | 20.0 | 8,980,000 | " | 1.06 | 9,519,000 | 21.20 |
| 1935 | 428,000 | 20.5 | 8,774,000 | " | .77 | 6,756,000 | 15.80 |
| **Oats** | | | | | | | |
| 1937 | 38,000 | 28.5 | 1,083,000 | " | .43 | 466,000 | 12.30 |
| 1936 | 39,000 | 29.0 | 1,131,000 | " | .51 | 577,000 | 14.80 |
| 1935 | 46,000 | 28.0 | 1,288,000 | " | .42 | 541,000 | 11.80 |
| **Barley** | | | | | | | |
| 1937 | 36,000 | 33.0 | 1,188,000 | " | .66 | 784,000 | 21.80 |
| 1936 | 40,000 | 25.0 | 1,000,000 | " | .67 | 670,000 | 16.75 |
| 1935 | 37,000 | 34.5 | 1,276,000 | " | .50 | 638,000 | 17.20 |
| **Rye** | | | | | | | |
| 1937 | 16,000 | 13.0 | 208,000 | " | .88 | 183,000 | 11.50 |
| 1936 | 15,000 | 12.5 | 188,000 | " | .85 | 160,000 | 10.70 |
| 1935 | 18,000 | 13.5 | 243,000 | " | .62 | 151,000 | 8.40 |
| **Buckwheat** | | | | | | | |
| 1937 | 5,000 | 19.5 | 98,000 | " | .70 | 69,000 | 13.80 |
| 1936 | 5,000 | 18.0 | 90,000 | " | .80 | 72,000 | 14.40 |
| 1935 | 6,000 | 21.0 | 126,000 | " | .55 | 69,000 | 11.50 |
| **Potatoes** | | | | | | | |
| 1937 | 30,000 | 116.0 | 3,480,000 | " | .60 | 2,088,000 | 69.60 |
| 1936 | 28,000 | 105.0 | 2,940,000 | " | 1.08 | 3,175,000 | 113.40 |
| 1935 | 33,000 | 95.0 | 3,135,000 | " | .53 | 1,662,000 | 50.40 |
| **Sweet..Potatoes** | | | | | | | |
| 1937 | 8,000 | 125.0 | 1,000,000 | " | .65 | 650,000 | 81.25 |
| 1936 | 8,000 | 150.0 | 1,200,000 | " | .86 | 1,032,000 | 129.00 |
| 1935 | 5,000 | 128.0 | 1,024,000 | " | .72 | 737,000 | 92.00 |
| **Hay..(All..Tame)** | | | | | | | |
| 1937 | 385,000 | 1.35 | 518,000 | Tons | 11.60 | 6,009,000 | 15.60 |
| 1936 | 370,000 | .88 | 327,000 | " | 15.10 | 4,938,000 | 13.30 |
| 1935 | 391,000 | 1.33 | 520,000 | " | 10.00 | 5,200,000 | 13.30 |

## PRODUCTION AND VALUE OF CROPS (Continued)

| Crop and Year | Acres | Per Acre | Total | Unit | Per Unit | Total | Value Per Acre |
|---|---|---|---|---|---|---|---|
| **Tobacco** | | | | | | | |
| 1937 | 36,000 | 700.0 | 25,200,000 | Lbs. | .20 | 5,040,000 | 140.00 |
| 1936 | 37,500 | 820.0 | 30,750.000 | " | .25 | 7,688,000 | 205.00 |
| 1935 | 37,000 | 755.0 | 27,935,000 | " | .20 | 5,587,000 | 151.00 |
| **Apples..(Total..Crop)** | | | | | | | |
| 1937 | .... | .... | 2,847,000 | Bus. | .65 | 1,851,000 | .... |
| 1936 | .... | .... | 2,014,000 | " | .89 | 1,792,000 | .... |
| 1935 | .... | .... | 2,412,000 | " | .61 | 1,471,000 | .... |
| **Peaches** | | | | | | | |
| 1937 | .... | .... | 448,000 | " | 1.05 | 470,000 | .... |
| 1936 | .... | .... | 279,000 | " | 1.45 | 405,000 | .... |
| 1935 | .... | .... | 382,000 | " | 1.20 | 458,000 | .... |
| **Grapes** | | | | | | | |
| 1937 | .... | .... | 750 | Tons | 45.00 | 34,000 | .... |
| 1936 | .... | .... | 740 | " | 50.00 | 37,000 | .... |
| 1935 | .... | .... | 676 | " | 45.00 | 34,000 | .... |
| **Tomatoes** | | | | | | | |
| 1937 | 59,200 | 2.8 | 165,800 | " | 13.20 | 2,189,000 | 37.00 |
| 1936 | 55,000 | 4.7 | 258,500 | " | 13.10 | 3,386,000 | 61.60 |
| 1935 | 64,300 | 3.5 | 225,000 | " | 12.50 | 2,812,000 | 43.73 |
| **Sweet..Corn..(For..Mfg.)** | | | | | | | |
| 1937 | 37,600 | 2.2 | 82,700 | " | 12.90 | 1,067,000 | 28.40 |
| 1936 | 34,000 | 2.3 | 78,200 | " | 11.70 | 915,000 | 27.00 |
| 1935 | 33,600 | 1.8 | 60,500 | " | 11.70 | 708,000 | 21.07 |
| **Cantaloupes** | | | | | | | |
| 1937 | 8,500 | 100.0 | 850,000 | Cr'ts. | .65 | 552,000 | 65.00 |
| 1936 | 8,100 | 95.0 | 770,000 | " | .85 | 654,000 | 80.60 |
| 1935 | 8,500 | 115.0 | 978,000 | " | .75 | 734,000 | 86.35 |
| **Strawberries** | | | | | | | |
| 1937 | 7,700 | 80.0 | 616,000 | " | 2.20 | 1,355,000 | 175.97 |
| 1936 | 7,500 | 45.0 | 338,000 | " | 2.50 | 845,000 | 112.67 |
| 1935 | 7,300 | 80.0 | 584,000 | " | 2.00 | 1,168,000 | 160.00 |
| **Snap..Beans..(For..Mfg.)** | | | | | | | |
| 1937 | 9,400 | 1.7 | 16,000 | Tons | 42.80 | 685,000 | 72.87 |
| 1936 | 9,760 | 1.4 | 13,700 | " | 42.80 | 586,000 | 60.00 |
| 1935 | 9,500 | 1.4 | 13,300 | " | 40.30 | 536,000 | 47.00 |
| **Green..Peas..(For..Mfg.)** | | | | | | | |
| 1937 | 20,250 | 1,800 Lbs. | 18,220 | " | 57.30 | 1,044,000 | 51.55 |
| 1936 | 17,800 | 1,250 " | 11,120 | " | 50.60 | 563,000 | 31.63 |
| 1935 | 18,500 | 2,350 " | 21,740 | " | 55.00 | 1,196,000 | 64.65 |

## LIVESTOCK ON FARMS

### January 1, 1938

| | Number | Value Per Head | Total Value |
|---|---|---|---|
| Horses and Colts | 80,000 | $122.00 | $9,768,000 |
| Mules and Mule Colts | 28,000 | 145.00 | 4,060,000 |
| Dairy Cows and Heifers | 190,000 | 66.00 | 12,540,000 |
| All other Cattle and Calves | 120,000 | 31.00 | 3,707,000 |
| Sheep and Lambs | 81,000 | 7.20 | 585,000 |
| Swine, including Pigs | 191,000 | 9.00 | 1,725,000 |

## ADMINISTRATION

THE administration of the Service was conducted as in former years, with increased responsibilities assumed by Mr. E. I. Oswald and Miss Venia M. Kellar. Effective October 1, Mr. Oswald was designated Assistant Director and Miss Kellar Assistant Director in charge of women's work. These workers have served efficiently for a number of years as County Agent Leader and State Home Demonstration Agent, respectively, and well deserve this added recognition and responsibility. The Director, on assuming additional responsibilities in connection with the College of Agriculture, has left to these leaders important aspects of administration.

Mr. Paul E. Nystrom, Assistant County Agent Leader, has assumed added responsibilities as State Executive Officer for the Agricultural Conservation and Domestic Allotment Act and, as such, has directed this activity in conjunction with the extension forces in the State. All forces cooperated in carrying out the conservation program.

The relationship of the Service to other educational institutions in the State continued sympathetic and cooperative. Splendid relations exist with the Vocational forces, as the Assistant Dean of the College of Agriculture is State Supervisor of Vocational Agriculture. This provided means for integrating these two lines of work as efficiently as possible.

The detailing of all specialists to their respective departments of the University served to integrate their work with the research and teaching activities in their several lines.

There was close cooperation at all times between the Extension Service and farm organizations, the State Grange and Farm Bureau, and Boards of County Commissioners gave splendid support and cooperation.

The Director of the Extension Service is Chairman of the State Committee for the Soil Conservation Service. This work was closely coordinated with activities of extension and research forces. Mr. O. C. Bruce, State Coordinator, has headquarters at the University and the work is being conducted with utmost harmony.

I am indebted to all members of the Service and heads of departments for their loyal support and earnest endeavor to meet

increased demands and assume additional duties that have been placed upon the Institution from the extension standpoint.

I wish to acknowledge my gratitude to the Assistant Directors, Mr. P. E. Nystrom, and Mr. A. H. Snyder, Extension Editor, who has greatly aided in preparation of this report, as well as other material for the Service.

## EMPLOYEES AT HEADQUARTERS—1937

| | |
|---|---|
| THOMAS B. SYMONS | Director |
| E. I. OSWALD | Assistant Director |
| MISS VENIA M. KELLAR | Assistant Director |
| A. H. SNYDER | Extension Editor |
| P. E. NYSTROM | Assistant County Agent Leader and Specialist in Farm Management |
| E. G. JENKINS | State Boys' Club Agent |
| MISS DOROTHY EMERSON | Girls' Club Agent |
| MISS FLORENCE H. MASON | District Home Demonstration Agent and Specialist in Home Furnishing |
| MISS K. G. CONNOLLY | Administrative Assistant |
| *G. J. ABRAMS | Specialist in Apiculture |
| W. R. BALLARD | Specialist in Landscape and Vegetable Gardening |
| H. C. BARKER | Specialist in Dairying |
| W. C. BEAVEN | Specialist in Marketing |
| *R. W. CARPENTER | Specialist in Agricultural Engineering |
| O. R. CARRINGTON | Assistant Extension Editor |
| *K. A. CLARK | Specialist in Livestock |
| J. A. CONOVER | Specialist in Dairying |
| *E. N. CORY | Specialist in Entomology |
| *S. H. DEVAULT | Specialist in Agricultural Economics |
| L. S. DODSON | Specialist in Rural Sociology |
| LAWRENCE E. DOWNEY | Assistant Specialist in Marketing |
| MYLO S. DOWNEY | Assistant in Club Work |
| H. A. EDGE | Specialist in Farm Management and Statistics |
| W. H. EVANS | Specialist in Soil Conservation |
| CASTILLO GRAHAM | Assistant Specialist in Entomology |
| *W. E. HARRISON | Assistant Specialist in Marketing |
| MISS JESSIE D. HINTON | Specialist in Home Management |
| H. A. HUNTER | Specialist in Canning Crops |
| *KENNETH C. IKELER | Specialist in Dairy and Animal Husbandry |
| *R. A. JEHLE | Specialist in Plant Pathology |
| *MORLEY A. JULL | Specialist in Poultry |
| A. V. KREWATCH | Specialist in Rural Electrification |
| G. S. LANGFORD | Specialist in Insect Control |
| JOHN W. MAGRUDER | Specialist in Soil Erosion |
| *DEVOE MEADE | Specialist in Animal Husbandry |
| MISS MARGARET MCPHEETERS | Specialist in Nutrition |
| F. W. OLDENBURG | Specialist in Agronomy |
| W. B. POSEY | Specialist in Tobacco |
| *HARLAN RANDALL | Specialist in Music |
| W. H. RICE | Specialist in Poultry |
| *C. S. RICHARDSON | Specialist in Educational Extension |
| S. B. SHAW | Specialist in Marketing and Chief of Maryland State Department of Markets |
| MISS HELEN SHELBY | Specialist in Clothing |
| M. M. SHOEMAKER | Specialist in Landscape Gardening |
| *C. E. TEMPLE | Specialist in Plant Pathology |
| H. J. TWILLEY | Assistant Specialist in Marketing |
| J. M. VIAL | Specialist in Animal Husbandry |
| A. F. VIERHELLER | Specialist in Horticulture |
| *E. A. WALKER | Horticultural Inspector |
| E. P. WALLS | Specialist in Marketing and Canning Crops |
| CHARLES WILLIAMS | Specialist in Poultry |
| C. F. WINSLOW | Extension Forester |

* Devote part time to Extension Work.

## COUNTY AGENTS—1937

| County | Name | Headquarters |
|---|---|---|
| Allegany | R. F McHENRY | Cumberland |
| Anne Arundel | STANLEY E. DAY | Annapolis |
| Baltimore | H. B. DERRICK | Towson |
| Calvert | JOHN B. MORSELL | Prince Frederick |
| Caroline | G. W. CLENDANIEL | Denton |
| Carroll | L. C. BURNS | Westminster |
| Cecil | J. Z. MILLER | Elkton |
| Charles | P. D. BROWN | La Plata |
| Dorchester | WM. R. McKNIGHT | Cambridge |
| Frederick | H. R. SHOEMAKER | Frederick |
| Garrett | J. H. CARTER | Oakland |
| Harford | H. M. CARROLL | Bel Air |
| Howard | W. G. MYERS | Ellicott City |
| Kent | J. D. McVEAN | Chestertown |
| Montgomery | O. W. ANDERSON | Rockville |
| Prince George's | P. E. CLARK | Upper Marlboro |
| Queen Anne's | KENNETH W. BAKER | Centerville |
| St. Mary's | J. J. JOHNSON | Leonardtown |
| Somerset | C. Z. KELLER | Princess Anne |
| Talbot | R. S. BROWN | Easton |
| Washington | M. D. MOORE | Hagerstown |
| Wicomico | J. P. BROWN | Salisbury |
| Worcester | R. T. GRANT | Snow Hill |

## ASSISTANT COUNTY AGENTS

| County | Name | Headquarters |
|---|---|---|
| Allegany, Garrett and Washington | H. W. BEGGS | Cumberland |
| Baltimore | J. WHEELER ENSOR | Towson |
| Harford | W. SHERARD WILSON | Bel Air |
| Kent | STANLEY SUTTON | Chestertown |
| Montgomery | RUFUS KING | Rockville |
| Carroll, Frederick and Howard | C. H. REMSBERG | Frederick |
| Caroline, Dorchester, Queen Anne's and Talbot | CHARLES FULLER | Easton |

## Local Agents—(Negro Work)

| County | Name | Headquarters |
|---|---|---|
| Southern Maryland | J. F. ARMSTRONG | Seat Pleasant |
| Eastern Shore | L. H. MARTIN | Princess Anne |

## HOME DEMONSTRATION AGENTS—1937

| County | Name | Headquarters |
|---|---|---|
| Allegany | MAUDE A. BEAN | Cumberland |
| Anne Arundel | MRS. GEORGIANA LINTHICUM | Annapolis |
| Baltimore | ANNA TRENTHAM | Towson |
| Calvert | ANGELA M. FEISER | Princess Anne |
| Caroline | BESSIE M. SPAFFORD | Denton |
| Carroll | ADELINE M. HOFFMAN | Westminster |
| Cecil | W. GERTRUDE DENNING | Elkton |
| Charles | MARY GRAHAM | La Plata |
| Dorchester | HATTIE E. BROOKS | Cambridge |
| Frederick | FLORENCE E. WILLIAMS | Frederick |
| Garrett | MILDRED E. BARTON | Oakland |
| Harford | CATHERINE MAURICE | Bel Air |
| Howard | MARTHA E. MANAHAN | Ellicott City |
| Kent | HELEN M. SCHELLINGER | Chestertown |
| Montgomery | EDYTHE M. TURNER | Rockville |
| Prince George's | ETHEL M. REGAN | Hyattsville |
| Queen Anne's | RUBY L. KIRK | Centerville |
| St. Mary's | ETHEL JOY | Leonardtown |
| Somerset | HILDA TOPFER | Princess Anne |
| Talbot | MARGARET SMITH | Easton |
| Washington | ARDATH E. MARTIN | Hagerstown |
| Wicomico | GERTRUDE M. COOKINGHAM | Salisbury |
| Worcester | LUCY J. WALTER | Snow Hill |

* Devote part time to Extension Work.

### ASSISTANT HOME DEMONSTRATION AGENTS

| County | Name | Headquarters |
|---|---|---|
| Allegany | MARGARET A. LOAR | Cumberland |
| Baltimore and Harford | ELIZABETH R. JOHNSON | Towson |
| Carroll, Frederick and Montgomery | JUDITH AULT | Frederick |

### Local Home Demonstration Agents—(Negro Work)

| County | Name | Headquarters |
|---|---|---|
| Charles, St. Mary's, Prince George's and Montgomery | MRS. ARMINTA J. DIXON | Washington |
| *St. Mary's | MRS. MARY A. MARSHALL | Dameron |
| Somerset | MRS. JUSTINE N. CLARK | Princess Anne |

## Changes in Personnel

Mr. Paul A. Raper resigned as Poultry Specialist, October 20, 1937.

Mr. Charles S. Williams was appointed Poultry Specialist, October 22, 1937.

Mr. Kenneth A. Clark was appointed part-time Animal Husbandry Specialist, September 1, 1937.

Dr. T. B. Manny resigned as part-time Rural Sociologist, September 30, 1937.

Dr. Linden S. Dodson was appointed part-time Rural Sociologist, November 1, 1937.

Mr. John W. Magruder was reappointed to the Service as Specialist in Soil Erosion, September 21, 1937.

Mr. S. L. Crosthwait was reappointed Assistant Entomologist, December 1, 1937.

Mr. William H. Evans was reappointed to the Service as Soil Conservationist, December 1, 1937.

Mr. E. K. Ramsburg resigned as County Agent in Howard County, February 28, 1937.

Mr. Warren G. Myers was transferred from Assistant County Agent in Harford County to County Agent in Howard County, April 1, 1937.

Mr. W. Sherard Wilson was appointed Assistant County Agent in Harford County, April 1, 1937.

Mr. A. A. Ady resigned as Assistant County Agent in Montgomery County, July 15, 1937.

Mr. Rufus B. King was appointed Assistant County Agent in Montgomery County, July 19, 1937.

Mrs. Jennie L. Beal, part-time Colored Assistant Local Home Demonstration Agent in St. Mary's County, died February 15, 1937.

Mrs. Mary E. Marshall was appointed part-time Colored Assistant Local Home Demonstration Agent in St. Mary's County, April 15, 1937.

Miss Isabel D. Bewick resigned as County Home Demonstration Agent in Queen Anne's County, August 20, 1937.

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* Devote part time to Extension Work.

Miss Ruby L. Kirk was appointed County Home Demonstration Agent in Queen Anne's County, August 16, 1937.

Miss Dorothy R. Ransom was appointed Colored Assistant Local Home Demonstration Agent in Montgomery, St. Mary's, Charles, and Prince George's Counties, November 1, 1937.

Miss A. M. Kefauver was appointed as Temporary Assistant County Home Demonstration Agent in Caroline, Dorchester, and Talbot Counties, June 16, 1937. She resigned August 31, 1937.

Miss Mary H. Rohrer was appointed Temporary Assistant County Home Demonstration Agent in Washington County, July 15, 1937. She resigned September 15, 1937.

## Sources of Extension Revenue

DURING the fiscal year ending June 30, 1937, there were available for Extension Work the following funds: Federal Smith-Lever, $60,023.83; Federal Smith-Lever Supplementary, $14,401.57; Bankhead-Jones, $82,221.75; Capper-Ketcham, $26,076.61; Additional Federal Cooperative Funds, $12,550.00; State Smith-Lever, $24,423.79; County Demonstration Funds, $38,405.82; State Funds for General Extension, $10,634.00; State Horticultural Fund, $8,102.51; Marketing Extension Fund, $7,747.07; Canning Extension Fund, $6,158.79; Poultry Extension Fund, $3,349.60; Dairy Extension Fund, $2,101.75; Tobacco Fund, $2,018.37; Beekeeping Fund, $796.78; Special Dairy Fund, $1,959.00; Cantaloupe Fund, $1,538.06; Miscellaneous Funds, including Advanced Registry, State Department of Forestry, Marketing Inspection Funds, etc., $38,347.71; and $63,696.00 contributed by the various counties; or a total of $404,553.01. In addition, $18,914.28 was used for Japanese Beetle and Insect Control Work, and $14,343.96 was disbursed by the U. S. Department of Agriculture; making a grand total of $437,811.25.

During the present fiscal year ending June 30, 1938, there are available: Federal Smith-Lever, $60,023.83; Federal Smith-Lever Supplementary, $9,601.05; Bankhead-Jones, $89,980.07; Capper-Ketcham, $26,076.61; Additional Federal Cooperative Funds, $9,600.00; State Funds for Agriculture and Home Economics Extension, $107,946.00; Special Dairy Funds, $3,326.00; Cantaloupe Fund, $1,500.00; State Horticultural Fund, $10,856.00; Miscellaneous Funds (estimated), including Advanced Registry, State Department of Forestry Funds, Marketing Inspection Funds, etc., $30,000.00; and $67,391.00 contributed by

the various counties; or a total of $416,300.56. In addition, there are available $22,079.00 for Japanese Beetle and Insect Control Work, and $15,520.00 disbursed by the U. S. Department of Agriculture; making a grand total of $453,899.56. Also, there is available $30,000 as an emergency appropriation for Japanese Beetle Control.

### Equipment

IT was not necessary to make unusual additions to equipment during the year. Some additions in the way of desks, filing cases and the like were required late in the year in connection with a reorganization of the force of specialists, which involved considerable change in office arrangements. There was, of course, the usual necessity for replacing regular equipment that became worn or obsolete, both in the offices at headquarters and in the counties.

### Records of Work

THE matter of records and the clerical force necessary to keep in proper form the mass of data required in connection with the many programs being carried out in the State, particularly the newer programs, has been an increasingly difficult problem. The offices in the counties especially have required substantial additions to their clerical force and equipment for handling records. It is gratifying to report that essential records were kept in good condition.

Because of the numerous funds involved and various sources of revenue for activities at headquarters and in the several counties, the problem of handling financial records was complex and difficult. Miss K. G. Connolly, Administrative Assistant, and her associates handled this work in a competent and satisfactory manner.

The number of first-class letters mailed from headquarters during the year was 74,932 and the total pieces of mail numbered 127,986. In all, 141,495 first-class letters were sent by the Service throughout the State.

## PUBLICATIONS

BY various types of publications issued by the Extension Service and by excellent cooperation of the public press of the State in carrying information regarding agricultural de-

velopments, it has been possible to reach and serve a much larger percentage of the people than would have been possible otherwise. This means of disseminating information has proved very effective through the years, and especially in recent years when the success of state-wide agricultural programs depended in large measure upon adequate understanding by people generally.

**The Public Press**—It is difficult to estimate the contribution to development of agricultural activities made by the public press of the State in its various forms. The weekly papers in the several counties and the daily papers have given liberally of their space, both to news and information concerning affairs of local significance primarily and to the broader programs that are being carried on.

News releases were sent to all the papers in the State each week, which together with the news and information regarding farm and home subjects supplied by the representatives of the Extension Service in the counties, provided the local weekly papers with as much material of that character as could be used in their columns. Daily papers and other forms of publications were served by special releases and articles. The excellent cooperation of the public press was an important factor in carrying on practically all lines of extension work, especially in connection with some of the newer programs, and the Service aimed to give full cooperation to the press.

**Publications Issued by the Service**—The principal change in publications issued by the Extension Service was in the direction of greater variety as to style, make-up and presentation of subject matter. Such changes were made with a view to making each publication serve most effectively the purpose for which it was designed. The regular series of bulletins and circulars carried on in former years were continued, but the publications included in them were of a wide variety.

In accordance with a reorganization of the agricultural unit of the University of Maryland made late in the year, whereby the extension, research and instruction activities were brought into closer relation, the Extension Service News was modified somewhat. Instead of being devoted as largely to news and information regarding extension activities as in former years, greater attention was given to other phases of agricultural sub-

jects and developments. The value of a publication of this type going monthly to some 3,000 leaders in rural affairs has been amply demonstrated.

**Radio**—While no provision was made for carrying on an extensive program of information by radio, considerable was accomplished with the cooperation of a number of agencies. Six commercial broadcasting stations contributed liberally of their time. These included two stations in Baltimore and one each in Frederick, Hagerstown, Cumberland and Salisbury. Five stations in Maryland carried the daily "Farm Flash" programs of the U. S. Department of Agriculture, with such adaptation and localization as were made by specialists and agents of the Extension Service.

**Illustrative Material**—Demands in this field increase each year, including practically all types of visual instruction aids. Charts and graphs are used more extensively and the improvement in publications calls constantly for more and better illustrations. Likewise, there is insistent demand for exhibit material. These several demands were met to the limit of facilities and resources, but there is need for substantial development in this field.

**Publications Issued**—During the period from January 1, 1937 to January 1, 1938, the following publications were issued: Bulletin 63 (reprint), "The Pattern Menu," 16 pages, 4,000 copies; Bulletin 78, "Spray Calendar for Apples and Peaches," 20 pages, 3,200; Bulletin 79, "Maryland Program for Agriculture and Rural Homes," 36 pages, 2,000; Bulletin 80, "Maryland Vegetables," 12 pages, 5,000; Bulletin 81, "Meal Planning," 24 pages, 5,000; Circular 112, "Maryland Poultry Improvement Plan," 16 pages, 1,000; Circular 115, "Color in Dress," 20 pages, 3,000; Circular 116, "Costume Accessories," 8 pages, 3,000; Circular 117, "Fitting a Dress," 8 pages, 3,000; Circular 118, "Dress Design," 12 pages, 3,000; Circular 119, "Clothes for the High School Girl," 8 pages, 3,000; Circular 120, "Costume Slips," 8 pages, 3,000; Circular 122, "Sweet Potato Certification," 20 pages, 3,000; Circular 123, "The Poultry Transportation Law," 4 pages, 5,000; Circular 124, "School Lunches," Part I, 12 pages, 5,000; Phamphlet, "Where Do We Go From Here?," 16 pages, 1,000; Leaflet, Announcement of Graduate Courses for Extension Workers," 6 pages, 4,000; 4-H Club Dairy Record

Book, 16 pages, 2,000; Record Book for Home Demonstration Work, 52 pages, 1,000; Phamphlet, "4-H Style Revue," 16 pages, 2,000; Food Record Sheets, 2 pages, 5,000; Annual Report of the Extension Service, 84 pages, 2,000; Extension Service News, 4 pages, 2,500 copies each month.

## COUNTY DEMONSTRATION WORK

MUCH of the success and progress attained in all extension programs depends upon the representatives of the Service who deal directly with rural people in their home communities, on their farms and in their homes. Especially in recent years, the agents in the respective counties have been called upon to accept greater leadership and responsibility.

**Organization**—While there have been some changes in personnel during the year, they were comparatively few. Each of the 23 counties had the services of a county agent and a home demonstration agent. In addition, there were during 1937, seven assistant county agents and three assistant home demonstration agents. The assistant agents, both men and women, devoted a major portion of their effort to 4-H club activities and to work with older youth.

The rural Negro population had the service of two local agents and two local home demonstration agents. These workers devote their time to the section of the State where the colored population is greatest, and the white agents assist the Negroes in counties where their numbers are smaller.

**Supervision**—Late in the year, the supervision of county demonstration work was altered somewhat, due to the fact that the County Agent Leader assumed also the additional duties and responsibilities of Assistant Director of the Extension Service. In supervising the programs carried out in the several counties, the Director and Assistant Director have the aid of an Assistant County Agent Leader, who devotes much of his time and effort to helping agents develop their programs, with special attention to the Agricultural Conservation program and other broad programs that have been launched in recent years.

**Agents Meet New Conditions**—With the various new programs affecting agriculture and farm people and the many changes in programs that have been made in the last few

years, Maryland is especially fortunate in her county agent personnel. With very few exceptions, they are highly trained, have had broad experience, have been in their respective counties for a number of years and are thoroughly familiar with local conditions, and have the confidence of the people. Without such a background, they would not have been able to assume the degree of leadership that has been demanded of them, and the new programs could not have been carried out as successfully as has been done.

Instead of devoting his efforts almost exclusively to teaching through practical demonstrations and developing leadership, the county agent has become more and more an administrator of all agricultural programs in his county. On his shoulders rests, in large degree, the responsibility of educating the farm people regarding the many aspects of the new agricultural programs, which affect the lives and well-being of rural people. Upon him depends largely the application to conditions in his county of the broad programs, such as Agricultural Conservation, Rural Rehabilitation, Soil Erosion Control, Land Utilization, Farm Credit, and other economic programs. The problems encountered by the farmers in adjusting their operations in accord with the new programs involve most or all of the practical problems with which the agent has dealt in past years and at the same time present many new problems and conditions.

With the new responsibilities the county agent has had to assume, he has necessarily changed his methods of operation. Likewise, his association with subject-matter specialists has undergone a change. The separate project approach has given way in considerable degree to the planning of coordinated programs, wherein the agents, subject-matter specialists, and any other agencies concerned, focus their combined efforts on specific problems confronting the people in the respective counties.

As a result of the educational work conducted in connection with the new farm programs and the participation of farmers generally in these programs, the number of people brought into direct contact with extension activities increases each year. New leaders are discovered and developed, and thus the scope and value of the service continues to grow.

Farm oragnizations, such as the Farm Bureau and Grange, continue to be important factors in the progress and success

of extension work in the counties. The leadership supplied by them and the opportunity for group discussion and action have added greatly to the efficiency and effectiveness of the work and the number of people that could be served.

**County Programs**—Not only are larger numbers of people participating in the county extension programs, but larger numbers are helping to make the programs that are carried out. Procedure in this respect has materially changed in recent years. Instead of calling together a few leaders to assist him in planning the program at the beginning of the year, the county agent now takes the leadership in a county program planning project in which large numbers of farm people engage. Facts and statistics pertaining to agricultural conditions and trends are assembled and presented to the groups, so that they can determine intelligently the lines of work which should be stressed during the year. Although there is always necessity for a degree of flexibility to meet problems and conditions that arise during the year, each county endeavors to carry out as nearly as practicable a fairly definite program.

**Business Phases of Farming**—In their attempts to deal with some of the economic problems affecting their industry, farmers have turned to their county agents for information, advice and assistance. Since most of the new programs aimed at improving the economic situation of the farmer have involved more or less change in farm management practices, the agents were called upon for information on a wide variety of questions. The tendency of farmers to plan their operations for longer periods in advance and to give greater consideration to coordinating their activities with State and national programs made necessary a much more general and thorough understanding of economic conditions. Likewise, an increasing number of farmers are realizing the necessity for adequate and accurate information regarding their own farm operations and the value of farm records.

Both the agents in the counties and the specialists in the several lines have rendered invaluable service in connection with helping rural people plan and adjust their farm enterprises in accordance with good business practice.

**Marketing**—In one or two cases during the year, the county agents in certain counties were able to render distinct services

in connection with unusual and acute marketing problems. In general, the work in that field was along much the same lines as in former years. It included at all times the encouragement of high-quality, standardized products and the use of established and recognized grades in marketing farm products, when practicable.

Support and assistance to existing cooperative marketing organizations and the encouragement of cooperation in handling others of the wide diversity of products grown in Maryland are a part of the extension program each year and both the specialists and the agents in the counties make substantial contributions. Supplying essential information, helping to work out equitable agreements between growers and distributors, maintaining understanding and satisfaction among members, and dealing with special problems are some of the ways in which service is rendered. When new legislation affecting marketing of any product is enacted, growers are informed as to its aims and purposes and best methods of compliance.

**Tours, Exhibits, Etc.**—Educational tours and various types of exhibits continued to prove of interest and value as means of disseminating information effectively. Groups were brought together for visits to points of particular interest within the county, in other sections of the State, and outside of Maryland. Such tours are usually made for a definite purpose and the county agent must assume responsibility for their leadership and success. Fairs, community shows and various other exhibits, together with judging demonstrations that accompany them, afford opportunities for effective teaching. Field Days, particularly in the livestock and dairy field, are gaining prominence and give evidence of the interest on the part of the farmers and their families in growing better products and in displaying them to better advantage.

## Negro Demonstration Work

Local Negro agents have not been called upon to change the character of their activities as much as the agents of the white population, as they were not required to devote as much time to the new agricultural programs. For that reason, they continued to devote the major portion of their effort to practical demonstrations with colored farmers with a view primarily to encouraging them in a live-at-home program.

The two full-time agents working on the Southern Eastern Shore of Maryland devote their time almost entirely to the colored population growing truck crops on small farms. In many instances, these people derive only a part of their income from the farm and the remaining portion from work provided by the water resorts.

The outstanding projects conducted by the local Negro agents were gardening, poultry raising, production of meat for the family, storage of products for winter, sanitation in and around the home, improvement of the homestead by the use of whitewash, and generally improved living conditions. Plans pertaining to farm and home management must of necessity be made in accordance with the comparatively small income received by the majority of Negro families and projects are adapted to their immediate needs.

## HOME DEMONSTRATION WORK

THE year 1937 was one of the most satisfying years in home demonstration work from the standpoint of seeing and measuring the results of Extension activities. Each of the twenty-three counties carried through a well-organized program with the largest attendance and best interest since the work was started.

In all counties the main objective was to aid homemakers in utilizing available resources in such a way that the families might enjoy health and comfort as a part of the Better Family Living program. They were helped in their economic security, home comforts and social desires. They were aided in making their homes more attractive, inside and outside, at small expense, and every effort was made to assist young homemakers and older young people who were beyond the age of interest in 4-H club work.

Better training schools and better results by project demonstrators were achievements of 1937. A greater number of younger mothers of pre-school children was reached with programs planned especially for them.

The agricultural subjects have become a recognized part of all home demonstration programs. The cultural subjects include recreation, music, family reading and art. These projects brought all members of the family together in mutual in-

terest and opened the way for work in family relationships. More homes were made beautiful, which is a project in which all members of the family can participate and enjoy the results.

Better coordination of the agricultural and home economics programs was effected than in any previous year. The Department of Economics helped in planning programs on outlook material for the Maryland farm family. The Dairy, Animal Husbandry and Garden specialists all had a part in helping the Nutrition specialists in planning the family food supply.

Finest cooperation all over the State was received from the State Department of Health, the Farm Security Administration, the Board of State Aid and Charities, county welfare associations and vocational teachers.

The Summer School and graduate courses for extension workers at the University of Maryland, together with a plan to give agents leave for professional improvement, were a great help to those who availed themselves of the opportunity.

Brief statements are given later regarding a number of projects, such as foods and nutrition, clothing, home furnishing, home management, and girls' 4-H club work, to each of which a specialist has devoted her time.

**Cultural Subjects**—The family reading project, art and recreation filled a need and a desire in the lives of rural families. More demand is being made upon the home demonstration agents for help in encouraging traveling libraries. Several clubs have their own libraries of both books and magazines.

Since the music project was started as a part of Extension work, there has been a great improvement in the type and quality of songs sung at all State and county meetings and by individual groups.

Somewhat less emphasis could be placed on recreation than was done the two preceding years, when a specialist was employed for a few months. However, the fine work done in the past carried over and was evident in the counties in which they worked.

**Child Development and Parent Education**—There is a growing demand for help in family relationship. Distinct progress cannot be made until such time as a specialist can be employed. In response to the demand, however, the specialists in other

projects have worked out a program with the young mothers that covers a number of lessons. The program is conducted on a planned discussion basis, with assigned reading as an important supplementary service.

**Project Demonstrators**—Much credit is due the demonstrators in adult work and local leaders in 4-H club work. Development of capable, resourceful and unselfish leadership among rural women and 4-H girls deserves public recognition, because it is one of the greatest contributions to Extension programs. It is a tribute to home demonstration work when they continue their services without any financial reward. Loyal leaders say "I owe all I can do in public to the training that I have received in home demonstration work."

**Achievement Days** — Each county in the State held an achievement program during the year. The women look upon this program as the measuring stick to check their accomplishments and to serve as a challenge in setting goals for the coming year. Occasions of this kind afford an excellent opportunity to observe the great growth that has been made in home demonstration work in the last few years. They are featured by good music, good reports of achievements and good leadership by the women participating.

Practically all of the counties joined together in groups of two or three and held tri-county or joint meetings. The purpose of these meetings is to give the women of each county a picture of what is being done in neighboring counties; they also give a vision of the opportunities that lie ahead in Extension work.

**Tours**—The women enjoy getting together for tours and they have become one of the educational features of project work. Visits to old homes and old gardens in Annapolis, the Bureau of Home Economics in the U. S. Department of Agriculture, and such places of interest serve as an inspiration and the women carry back to their homes vivid pictures of the things they have seen.

**Farm Women's Markets**—The four farm women's markets operated during the year proved a source of substantial income to a large number of farm women. The market at Bethesda is the largest in the State and has achieved national reputation.

It has proved of special interest to many distinguished foreign visitors when they were in Washington.

The money received by sellers on these markets has gone far in helping with the family finances. Taxes have been paid, children sent to college, homes remodelled and repaired, and the morale of the whole family has been improved because of the ready cash they had to spend.

The public demands standard quality in their products and the home demonstration agents and nutrition specialists help in keeping products on a satisfactory selling basis.

In addition to the definitely organized markets, women sell in roadside markets all over the State. No estimate can be made of the income derived from sales in that way. Many farm women also have specialties that they sell to a private trade.

**Rural Women's Short Course**—The Annual Rural Women's Short Course, which has been held at the University of Maryland for fifteen consecutive years, has become an established part of the University program. It has also become one of the leading interests in home demonstration work in each county. The opportunity to participate for a week in a program that is cultural, inspirational, practical and helpful is changing the home life of many Maryland women.

This Course gives to the women a vision of the opportunities in adult education and develops leadership. It has seemed necessary to limit attendance to approximately 700, and there is an average of 75 visitors at classes each day. Many more attend the evening programs.

Each year stronger leadership among the women is apparent. More and more they can make worth while contributions to the program. Especially is this true with respect to music, the training for which begins back in the counties and in the county choruses.

## Work with the Negroes

Negro home demonstration work continues to render valuable assistance in five counties, where most of the colored population is concentrated. The local Negro agents featured the Better Family Living program, which emphasized the importance of food production and conservation, home clothing, sani-

tation and health. The food production project was especially gratifying. Colored families have come to realize that they must raise their own food and conserve it in order to have any available money to spend for clothes and other necessities of life.

The Negroes are so responsive and so eager for help that much more could be done with them than has ever been done in the way of teaching food values, home management, and food production, if the help and time were available.

*Girls who took part in the style revue of the annual 4-H Club Week at the University of Maryland. Marjorie McKnight, ninth from left in the front row, was selected grand prize winner and represented Maryland in the style revue at the National 4-H Club Congress.*

## CLOTHING

THE clothing project was planned as a definite contribution to the Better Family Living program for Maryland farm and rural women. The increase in farm income was reflected in the total absence of calls for help with clothing remodeling problems. The memory of leaner years and lower clothing budgets has brought a keener interest in information and quality guides that insure wise use of money. Interest in personal appearance and grooming has increased steadily and has reached the point where it is impossible to recognize a member of a farm family by dress.

Objectives of the clothing program of the Extension Service during 1937 were the same, in general, as for the preceding

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Objectives of the clothing program of the Extension Service during 1937 were the same, in general, as for the preceding

year, the principal difference being in phases emphasized. Briefly stated, it was the aim, (1) To help families determine their clothing needs and to meet these needs in the most satisfactory and economical way; (2) To provide information necessary for development of sound judgment in selection and buying of becoming and suitable clothes, so that money is well spent; (3) To help women and girls develop sufficient skill in construction so that satisfaction and efficiency are acquired; and, (4) To stimulate interest in a movement for labels or other means of giving factual information to consumers.

**Indications of Interest**—Some impression of the interest shown in the several phases of the clothing project can be gained from the following summary of reports from home demonstration agents: 4,354 persons followed recommendations in construction of clothing; 4,013 followed recommendations in selecting clothing; 707 kept clothing accounts; 416 budgeted clothing expenditures; 2,076 families followed clothing buying recommendations; 639 persons improved children's clothing; 1,794 persons improved methods of care, renovation and remodeling; and 940 families were assisted with information in meeting clothing requirements.

**Project Leaders Help**—Much credit for the extent of the project is due the local leaders who gave freely of their time; 265 local leaders assisted with the project and gave 594 days to it. This assistance greatly increased the work that could be accomplished with both adults and 4-H club girls.

## FOODS AND NUTRITION

THERE was more of both cash and food on the farms, but the increase was not sufficient to warrant a decided change in the program. Farm families are acquiring the habit of making larger gardens and preserving in various ways more of the foods produced on the farm. They realize that their families are better fed by this means.

Planning and planting adequate home gardens, preservation of the products of these gardens, planning of low-cost meals, and the sale of various farm and home products in order to obtain ready cash for family expenses were stressed especially during the year.

**Analyzing Food Needs**—The fact that food constitutes the major item in farm family living and that the cash spent for food purchased is the major item in money expenditures gives emphasis to better planning of the family food supply and wise spending for necessary staple foods.

Homemakers are realizing more keenly the necessity for analyzing their food situation as a family problem and determining the food needs of the family on a yearly basis. This means the necessity for determining the kinds and amounts of food to use fresh, to can, dry, cure, store and purchase. Information required in order to analyze the needs and to plan intelligently was supplied by specialists and agents of the Service, to the end that the food problems of rural people are being placed on a sounder basis from the standpoints of economy, health, and efficient nutrition.

**Hot Lunch in Schools**—In some of the poorer communities, where many of the children did not bring lunches and were underweight, the school lunch problem is important. The Red Cross, Parent-Teachers' Association, Relief Administration, and commercial concerns assisted in providing a part of the food for hot lunches in many schools, so that all children might have at least one wholesome meal a day. Hot lunches were served in 113 schools and approximately 5,172 children were helped by them. As a result, there was better attendance at school, better work done by the children, less illness, and the children gained in weight during the months hot lunches were served. Home demonstration agents helped in such ways as making menus, order lists, obtaining recipes, training school children and teachers in preparing suitable hot dishes, obtaining contributions of food, money, equipment, and with help in planning and organizing some of the lunch projects.

**Child Feeding**—Greater attention was devoted to problems associated with child feeding and the value of good food habits formed in early childhood. As a result, more mothers of young children are putting forth greater efforts to feed their children properly.

## HOME FURNISHING

MUCH of the value of the work in home furnishing is in improved family relations, family development, recreational and social satisfactions that cannot be estimated in

money. While the valuations on reports from year to year show a satisfactory increase and are an indication of the progress that is being made, they do not represent the most important value of the project.

This year registered the beginning of a long-time project in home furnishing that was outlined by a State Committee consisting of four home demonstration agents and the home furnishing specialist. Fifteen counties elected the study of arrangement and use of furniture and lighting as their major project; five other counties carried a part of this phase of the Better Family Living Project as a minor project.

**Local Leaders Help**—Much of the progress made during the year is due to the effective part taken by local leaders. The project was organized in the several counties with the aid of a committee, which first surveyed the situation and needs. The specialist prepared demonstration and discussion material to cover the subject matter needs, and the project was presented to the county groups by the county committee. The committee also selected the homes in which rooms were to be rearranged to satisfy the needs and activities of the families using them.

Among the exhibits arranged were those showing living room arrangements for study, listening to music, reading, conversation, pursuit of hobbies, recreation, and selection and arrangement of furniture for pre-school child use.

The largest increase in practices this year was in improvements in arrangement and use of furnishings.

**Other Activities**—Some of the other phases of the project taken care of in response to interest among the women and girls were upholstering, slip covers, hooked rugs, chair seating, flower arrangement, and furniture for the pre-school child.

## HOME MANAGEMENT

WHILE more or less work in this field has been done under the leadership of specialists in other lines and the home demonstration agents during the last few years, 1937 was the first year in which a home management specialist devoted her efforts to the work throughout the year. Four phases of the subject were given attention, although the work was somewhat preliminary along some lines and more in the nature of foundation for coming years.

Greater emphasis was placed on home accounts, which were carried out by both adults and 4-H club girls in most of the counties as result demonstrations. A money management project was started, but was not definitely carried out in any county during the year. Plans are ready for progress in that line in 1938.

Kitchen improvement was a phase that evidently met with rather wide interest, as reports show that 832 kitchens were rearranged or improved according to recommendations.

Help in obtaining labor-saving equipment, in laundering practices, in soap making, in methods used in care of the house, in making equipment or conveniences, in developing home industries, in buying for the home, are some of the many ways in which home management activities of the Extension Service are contributing to the comfort, convenience and satisfaction of rural people.

## GIRLS' 4-H CLUB WORK

THE 4-H program for girls in Maryland continued to emphasize high ideals and standards and the teaching of skills for better homemaking and community life. Programs in each group were based on the immediate needs and life experiences of the individual members. Such programs included various phases of work in clothing, foods, home furnishing, home management, home beautification and conservation.

A study of the county reports shows more time devoted to recreation, cultural subjects and social development. Glee clubs and chorus groups, both county-wide and local, were reported. This is in line with the adult program of music, reading and art and indicates that mothers and daughters have more common interests and activities.

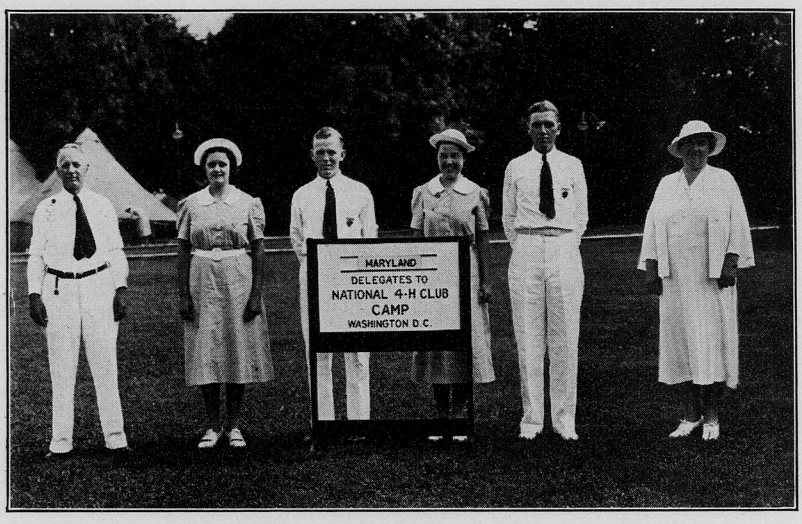
The total enrollment was 6,359, of which 4,900 were in white girls' clubs and 1,459 were in colored girls' clubs. White girls made a record of 77.5 per cent in completions of projects and colored girls had a record of 82.1 per cent in completions.

The Style Revues, both county and State, set a high mark and showed excellent skill attained by many girls in clothing construction and wise selection of garments.

School lunches and better nutrition programs contributed materially to the health and well-being of club members. Food

conservation and home gardens provided additional opportunities for mothers and daughters to work together in a better understanding of family needs and best ways to meet them.

**Community Responsibility**—The value of cooperative effort and the relationship between community problems and personal and family life was recognized in club work and ample opportunity was provided for activities which emphasize that




*Maryland 4-H Club members who represented the State at the National 4-H Club Camp, held in Washington. From left to right they are —E. G. Jenkins, State 4-H Boys' Club Agent, Helen Coleman, Frank Stiles, Jean Parent, Raymond Mueller, and Miss Dorothy Emerson, Girls' Club Agent.*

side of the program. Older 4-H club groups took entire responsibility in many counties for organizing and carrying out successfully county-wide achievement days, banquets, camp fires, and other like activities planned for the younger club members and their parents.

The building of an attitude of community responsibility on the part of adults for 4-H club work grows apace. Local leaders and community advisors were enlisted and given training by county and State extension workers, both in subject matter and adolescent psychology. In this way, it was possible to greatly extend the work beyond what could be done by regularly employed persons alone and to a limited extent meet the

increasingly difficult problem of reaching more of the young people of the State.

**Coordination with Adult Program**—The 4-H club members and adult homemakers have been more closely related and coordinated in their activities this year—in the more progressive counties particularly. Each group made reports to the other on its progress and achievements and they often worked together definitely on activities that contribute to better family and community living.

**Camps**—Standards for camps set by the State 4-H Club Committee resulted in better camp sites and camp sanitation. The camp programs encourage self-direction and freedom among members, so that they learn to better handle their own life responsibilities and may learn also more of their own individual needs, special interests and talents.

## BOYS' 4-H CLUB WORK

AN all-time high mark was set in Boys' 4-H Club Work in 1937, when 4,617 boys and girls were enrolled under county agents. Of this number 85 per cent completed their projects.

**Livestock Projects**—Special emphasis was placed on livestock work, in which excellent subject matter instruction was given to outstanding individuals by specialists. Actual completions increased in the following subjects by the percentages indicated: Horses, 26 percent; beef cattle, 100 percent; swine, 47 percent; and sheep, 26 percent. The quality of 4-H Club livestock maintained its high standard, and in most cases improved.

In April a ten-day training school was held at the University for assistant county agents, with instruction in fitting and showing livestock. The results were evident in the high quality of work in the show ring in 4-H club classes of horses, baby beeves and sheep.

In the baby beef project, 84 boys fed 145 animals and 65 were sold at public sale during shows in Baltimore and Hagerstown. In spite of high feed costs, all but two members report profits ranging from $15 to $60, not including prizes. Cattle breeders helped supply calves, advised and instructed boys, and gave much encouragement.

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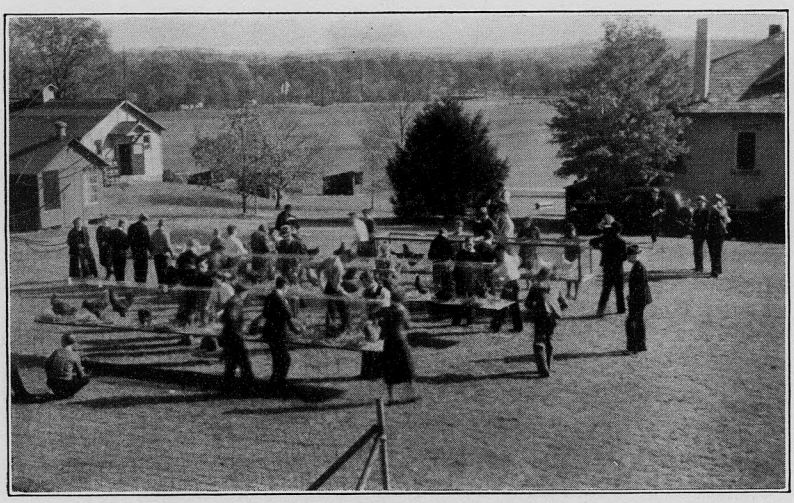
Considerable increase in the swine project was probably due to improved prices and to the emphasis placed on growing fat hogs for top market prices. An increase in the number of sheep resulted from success of the lamb show in Baltimore the preceding year. High prices for lambs at the start, high feed prices, and a poor market at sale time caused many boys to lose money.

**Dairy**—There were a few more members enrolled in dairy club projects and a few more animals owned in 1937 than in the preceding year. The quality of stock, care and management were of the usual high order. Progress was made in working with club members in families where the quality of livestock is very low.

Bang's disease eradication work, progressing rapidly, is no doubt helpful to 4-H club work with dairy cattle. Dairy cattle judging interested many boys in nearly all counties and team demonstration instruction in production of clean milk received greatly increased attention.



*Teams from 14 counties competed in the State 4-H poultry judging contest. Talbott County was first and placed one member on the team which represented Maryland in the contests held in New York under the auspices of the Northeastern Poultry Producers' Council.*

**Poultry**—Work in this project, which has been slowly decreasing for a number of years, took a turn this year and a larger number of demonstrations was reported completed than

for several years. Completions increased 40 percent over 1936. This is a most encouraging sign in the project which leads all others in the interest of rural Maryland youth.

**Other Projects**—Home garden projects had an enrollment of 833 boys and 747 girls, and market garden projects enrolled 333 boys. In such projects as corn and potatoes, there were slight losses in membership. Tobacco club work received the least attention and sustained the greatest loss in membership. Seventy boys completed projects in farm accounting. More farmers are becoming interested in keeping farm records as a result of this project, farm management is improving, and the value of the work is receiving encouraging acceptance. The conservation project increased, due largely to a State camp for delegates, supported by Charles L. Horn of the Federal Cartridge Corporation. Excellent work was accomplished by 321 boys in wild life conservation.

**Older Youth**—Ten counties reported 12 clubs of Older Youth, composed of 245 young men and 235 young women. They held regular meetings with educational and recreational programs. Most of these groups assisted county agents with all 4-H club county-wide affairs, such as rally days, exhibits, banquets, picnics and tours. State-wide meetings were held at the University in August and in Baltimore in January.

**Club Week**—The University furnished instruction, entertainment and inspiration to the largest delegation of 4-H club youth when 616 boys and girls and leaders registered at Club Week in August. Many visitors attended assemblies, camp fires, the All-Star Consecration and the Style Show. Demonstration instruction for boys, especially that concerned with livestock, was probably the best ever given.

**Activities at Expositions and in Contests**—Maryland 4-H Boys' Clubs were well represented at the National 4-H Club Camp in Washington. During that Camp, Maryland was honored by having five older club members present the playlet, "Our Rural Heritage," at one of the assemblies.

Seventeen counties participated in the dairy judging contest at the Timonium Fair. One hundred head of dairy cattle and 27 head of swine were exhibited. For the first time in several years, a dairy demonstration contest was held at this fair. The

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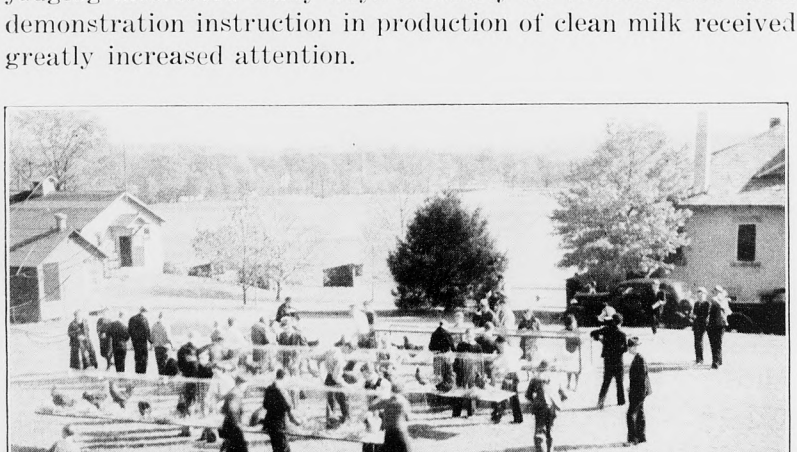

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team from Allegany County placed first and was later sent to the National Dairy Show, where it placed third in its section. The dairy judging team from Baltimore County won first in the State judging contest.

The State Judging Team sent to the National Dairy Show was composed of Willis Smith, Harford County; Samuel Slack, Howard County; and Norman Rounds, Wicomico County, with Robert Stiles, Montgomery County as alternate. This team placed seventh and Willis Smith was second high individual.

Highest place in the State Poultry Contest was won by Roscoe Whipp, Frederick County; Betty Potts, Talbot County; and Carlton Davis, Queen Anne's County. This team won first place at the Poultry Industries Exposition in New York, and Roscoe Whipp was high individual.

Club members exhibited and sold 33 baby beeves, 85 lambs and 43 fat hogs at the Baltimore Livestock Show. Fifteen counties competed in the fat stock judging contests held in connection with that Show. The team from Montgomery County, consisting of Melvin Walter, William Miles and Maurice Ward, won high place. This team was sent to the International Livestock Exposition in Chicago, where it placed fifteenth in the contest. Maurice Ward placed first in sheep judging and tenth in the entire contest.

Small, but successful fat stock shows were held at a number of points in the State, particularly in connection with the Hagerstown and Frederick fairs.

Six boys, selected for meritorious accomplishments, were sent to the National 4-H Club Congress in Chicago.

## Negro 4-H Club Work

Under the two local Negro agents, club work with boys of the colored race increased nearly 18 percent and the number of members completing their projects was high. There were 1,324 enrolled and 1,118 completed their projects.

Following a "live-at-home" program for several years, the garden and poultry projects received much attention, and enrolled 394 and 471 members, respectively. Swine demonstrations maintained satisfactory number and high quality work; 223 of 247 enrolled completed their projects.

The local agent on the Eastern Shore, who for years has accomplished outstanding work with Negro boys and girls, states that the projects carried out by his club members were valued at more than $50,000.

Vocational high school boys, with their teachers, joined the 4-H club members at the State Short Course held in Princess Anne in July. There were 165 youth enrolled for intensive demonstration work in swine management, care of poultry, wood work and care of tools, dairy instruction, and instruction in insect control.

## AGRONOMY

A severe loss was sustained by the Extension Service, by his associates, and by the farmers of the State in the death of Frederick W. Oldenburg, who for the last 20 years had been specialist in agronomy. Mr. Oldenburg was injured in an automobile accident on November 27, 1937, and his death occurred on January 22, 1938.

His earnest devotion to his work, his untiring efforts, his genial personality, and unfailing loyalty had won for him a place in the hearts of those with whom he came in contact. He was widely known throughout the State and deserves a large share of credit for many important developments in Maryland agriculture.

While Mr. Oldenburg conducted the work in agronomy until December, the report on that project was necessarily prepared by others from his records.

*F. W. Oldenburg*

**Soil Fertility**—Definite help with soil fertility problems and the working out of specific systems of management designed to maintain or increase fertility continued to be a major phase of agronomy extension work. Using the quick test method of testing soil samples, in cooperation with the Agronomy Department of the Experiment Station, definite recommendations for an increasing number of farms have made each year since the work was started six years ago. In 1937, 529 farmers with

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soil fertility problems sent soil samples from 1,491 fields to the Extension Agronomist. Based on the personal knowledge of the soil involved, the information furnished, and the results of laboratory tests, recommendations were sent to these farmers through their county agents.

**Pure Seed**—There was a decided increase during the year in the number of farmers interested in growing pure seed. The diversity of conditions in Maryland makes it essential that adapted varieties and strains be grown in the respective sections of the State, if high average yields are to be maintained, and increased. To that end, the Extension Service for a number of years has devoted efforts consistently to aid in establishing reliable and dependable sources of seed for the several regions. A number of demonstrators in all parts of the State, who grow recommended varieties and follow practices necessary to insure pure seed, have contributed valuable aid in this work.

**Certified Seed**—A large number of farmers buy seed every year, some certified seed, with the idea of selling certified seed from their crop. Comparatively few realize that growing grain good enough to warrant certification by the Maryland Seed Certification Board is a specialized business.

During June and July, 69 grain fields were visited, in company with the grower and the county agent. The condition of the grain was noted and discussed with the farmer, and suggestions were made. After threshing, growers sent samples of their grain to the Seed Certification Board, where it was tested in the laboratory and classified as Certified, Listed, or Good, after some bin inspections.

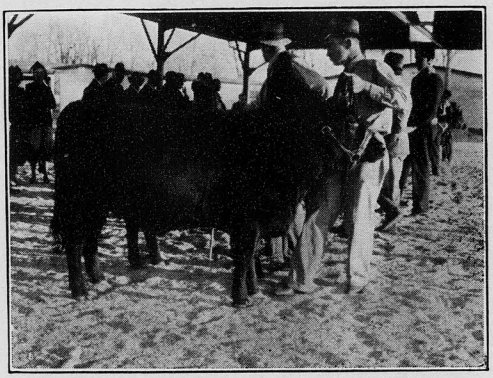
**Hybrid Corn**—Due to the intense interest in hybrid corn, it was thought necessary to put out a number of farm demonstration trials in order to determine the suitability of such seed for Maryland. A small group of Mid-Western hybrids was obtained and the seed planted in comparison with native, open-pollinated corn on eight farms.

**Crop Improvement Association**—The Maryland Crop Improvement Association is an important factor in carrying out the Extension program. The Extension Agronomist has an important part in getting up the program and manages the

corn and grain show held annually in Baltimore. Compared to the preceding show, the number of exhibitors increased from 51 to 94 and the number of exhibits from 114 to 197. Exhibits were entered from 15 of the 23 counties in the State.

## LIVESTOCK

THREE PROJECTS stand out in a review of the animal husbandry extension program in 1938. They are the continued interest in and development of the beef cattle industry; the increased importance of the draft horse projects; and a school for leaders in livestock 4-H club work, held at the University in April.



*Grand champion female of the Maryland Aberdeen-Angus Show, held at the Timonium Fair grounds. She is owned by W. F. Schluderburg and is Edwina of Bellindallock, Eighth, of Wilmae Farms*

**Beef Cattle** — Some impression of the development in this field may be gained from the increase in beef cattle breeders in the State. Only a few years ago, the breeding of purebred beef cattle in Maryland was negligible. At least 25 new Aberdeen - Angus herds were started the past year and work and growth of the association representing that breed continued steadily and logically. Maryland stood sixth in 1937 on the list of all states in the number of purebred Aberdeen-Angus cattle transferred to it. Official records show 604 animals transferred to breeders in Maryland and it is estimated that approximately 200 purebred animals of that breed were sold and shipped out of the State in that period.

Interest in breeding beef cattle was evident among breeders of Herefords, also. A number of outstanding animals were brought to the State and a Hereford Breeders' Association was formed.

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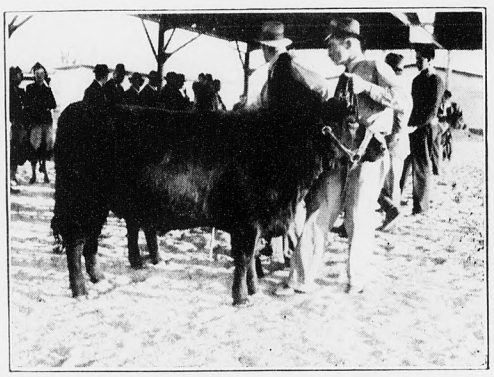

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Fairs and exhibits fell in line with the growing interest in this phase of Maryland agriculture and contributed materially to its promotion. The Maryland State Fair at Timonium provided the first standard beef breeding classifications and premiums ever offered. This brought out a very creditable showing of Aberdeen-Angus breeding cattle and also a fair exhibit of Hereford breeding animals. At the Baltimore Livestock Show, both Hereford and Angus breeders exhibited fat steers. Other shows and fairs likewise reflected the interest and development.

**Draft Horses**—The continued interest in purebred draft horses was almost phenomenal. Among other evidences of this interest is the fact that the Extension Specialist was drafted to select some individual animals in both Belgium and France for a few of the Maryland studs. The reserve champion mare at the Maryland State Fair, though shown in every-day clothes, was one of the Belgian individuals selected abroad.

At the Timonium Fair, for the first time in years, through the cooperation of the Timonium Fair Board, the Extension Service, and the State Fair Board, a classification for the three leading draft breeds, Belgian, Percheon and Clydesdale was offered, with premiums to the extent of $1,260. The Frederick Fair had the largest entry of purebred Percheon horses east of Ohio. There were more registered Percheon horses at that Fair than at the Royal Livestock Show in Kansas City. Particularly notable was the growth and development at the Southern Maryland Horse Breeders' Show. Other fairs and shows gave similar evidence of the growth among horse breeders. The Extension Service had a valuable part in the several phases of this development, both in helping to secure suitable animals and in educational activities pertaining to their care and management.

**School for 4-H Livestock Leaders**—While this project was designed primarily for the benefit of boys in 4-H club work with livestock, it appears certain that its effect and influence will be much more far-reaching. There had been evident in the various counties a lack of ability to do the necessary follow-up work in connection with livestock projects. As a consequence, plans were made for a "rubber-boots-and-overalls" short course at the University. Owing to limited facilities, the assistant

county agents were requested to attend and each of them bring with them one or two outstanding young men, preferably former 4-H livestock club members. Foremost breeders in each class of livestock were asked to cooperate, either by coming prepared to take charge of one of the demonstrations, or sending an experienced herdsman, groom, or shepherd for the job. The response from breeders was remarkable and the psychological, as well as practical, value of rubbing shoulders with these practical breeders and Scotch herdsmen cannot be estimated. The eventual worth of this type of school will have to be determined by future developments, but the extension specialist feels that it was one of the most vital attainments of the year, even though the number attending was not large. It is the feeling that those in attendance from all parts of the State will result in a wide range of influence.

**Tours**—Two general livestock tours were held in conjunction with the Maryland Stockmen's Association, one in Baltimore County and one in St. Mary's County. The attendance was good and those making the tours saw excellent animals, good pastures, growthy alfalfa, good corn approaching maturity, and good buildings.

**AAA Program**—The soil conservation program fits in admirably with the basis of most effective livestock developments, in that stress was put on pastures and forage crops, both permanent and temporary, which is ideal from the stockmen's viewpoint.

## FRUITS

PROBLEMS associated with production of high-quality fruit on an economical basis had a prominent place in the 1937 program, but greater attention was given to specific problems in marketing fruit than has been done in previous years.

**Apple Advertising**—Growers of Maryland joined with those in adjoining states in 1936 in a project known as Appalachian Apples, Inc., to attempt to advertise and publicize apples. The program was highly successful and the organization was continued through 1937, although the sign-up in Maryland the second year was not as gratifying. The 1937 sign-up at one cent per bushel was 528,894 bushels in Maryland.

Appalachian Apples had a total budget of $67,000 in 1937, but owing to great difficulty in selling fruit, it was hard to collect the money. An important step was made in that Appalachian Apples has now joined with all other regional apple advertising plans supported by growers, and this may lead to eventual national apple advertising, supported by all sections of the country.

***A display of varieties of apples at the Farm Products Show, made by the University of Maryland Department of Horticulture.***

**Unprofitable Trees or Varieties**—The fruit industry is cleaning house, ready for any coming economic changes. There has been heavy removal of apple and peach trees in all parts of the State where it was found that such trees were weak, too old, of poor variety, on poor soils or in poor locations, or were generally unprofitable. There are many acres marked for removal during the coming years. There is considerable planting being done, using some of the newer, better varieties, but the planting is not nearly in proportion to tree removal. This adjustment in the fruit industry was given much attention by extension workers in that field, to the end that those engaged in the industry may place their operations on as sound basis as possible.

**Cultural Practices**—Maintenance of fertility in orchard soils, prevention of erosion, growth of suitable cover crops, fertilization, spraying, pruning, pollination, thinning of fruits, and other problems associated with production were important parts in the program carried out during the year. By demonstrations, meetings, letters, publications, etc., practically all commercial growers were assisted with their production problems.

**Small Fruits**—Work with small fruits is necessarily rather sectional, in accordance with the principal areas in which the different small fruits are grown somewhat extensively. For this reason, field meetings were an important means of carrying on the work. Great interest is being shown in a plot of ground, donated by F. B. Mullendore, a veteran berry grower of Washington County, on which all of the available new varieties of raspberry and blackberry were set in the fall of 1936 and spring of 1937. These plots are not yet in prime producing condition, but will form the basis for most valuable demonstrations.

A field meeting in the Marion strawberry producing section was an outstanding event in work pertaining to that crop.

**Soil Conservation**—The soil conservation program carried on under the AAA proved much more attractive to fruit growers than the programs of previous years and in some counties they entered into the plan almost 100 per cent. They were encouraged to participate in this program and also to be active in checking soil erosion.

**Emergency Projects**—Cooperation was given to the Federal Surplus Commodities Corporation in its purchase of surplus apples. Visits were made to individual growers in connection with the plan and assistance was given in appointing county committees.

Special assistance was required in two cases with respect to fruit which failed to pass inspection because of excess spray residue. Such occurrences give emphasis to the extension program of recommending that Maryland growers install fruit washers, and then spray efficiently to control orchard pests.

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## ORNAMENTAL AND VEGETABLE GARDENING

EXTENSION WORK in landscape gardening has endeavored as best the facilities and resources available would permit, to meet the demands in two major lines. First, to educate and render every aid possible to individuals, especially in organized groups, in the fundamentals of good landscape development of home grounds. And, second, to assist in the development of various types of public grounds. Work in both of these lines continues to hold a popular place in the activities of the several counties and to make increasing demands upon the specialists.

**Improvement of Home Grounds**—Reports from the agents indicate that 3,213 persons accomplished some form of home ground improvement during the year. Eight hundred and forty girls were enrolled in the junior project and 685 of them completed the year's work.

The garden school continues to be an effective method of arousing interest in ornamental gardening. It is organized generally on a county-wide basis. Six counties had such schools in 1937, two of them being two-day schools. The total enrollment was 690, or an average of 155 to the school. Seven flower shows grew out of the interest developed in the project.

Home demonstration agents had a prominent part in home ground improvement work, the subject matter being presented in many cases by project demonstrators. The most successful method used was the presentation of four lessons on appropriate subjects then carried out during the season on the grounds of those cooperating.

Monthly mimeographed sheets, under the title of "Ornamental Gardening Notes," were distributed to more than 1,600 persons and brought to them timely information and advice.

**Landscape Plans and Advice**—Requests were received for 138 landscape demonstrations. Forty-one were for school grounds, 66 were home grounds, 8 were parks and other civic projects, and 23 were of a miscellaneous character. Eighty-eight landscape plans were prepared for these demonstrations. Because of the time required for developing designs, only a

limited number can be undertaken each year. For this reason, more time was devoted to the educational program in order to reach more people.

**Miscellaneous Activities**—Much time was devoted to work foreign to ornamental landscape extension work. Various governmental emergency projects and development of the University campus accounted for a large portion of the extra activity. Additional work included service as consulting landscape architect for the C. C. C. State Park Development Projects; consultive work with reference to the National Recreation Survey, the National Park Service, the National Resources Committee, and with the State Planning Commission with regard to development of the Washington-Baltimore-Annapolis area.

**Vegetable Gardening**—The greatest advance in vegetable garden work compared with recent years was with juniors. A home garden project stimulated new interest in the home garden. Reports indicate that 1,580 4-H club members enrolled in that project and that 1,242 completed their work.

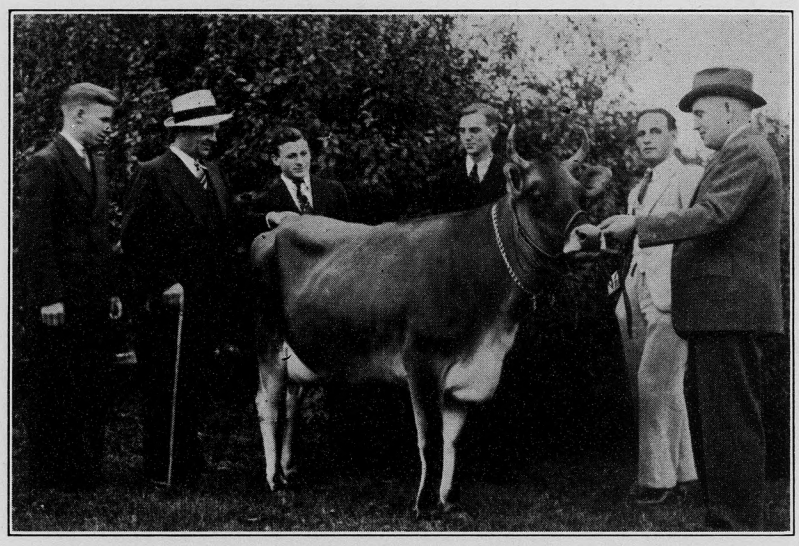
Through cooperation with experiment station workers, demonstrations of the adaptability of varieties of vegetables to Maryland conditions were conducted during the year with excellent results.

Extension Service bulletin No. 70, "The Small Vegetable Garden," was revised and brought up-to-date.

## DAIRY HUSBANDRY

A NUMBER of phases of the dairy extension program have become so established and such an integral part of the development in that important industry that the principal difference is in extent, rather than in character of effort. Improvement of the dairy animals and dairy products and efficient, economical methods of production and management were prominent features of the program. While there were no unusually critical problems or periods in the marketing of milk from producers, the Extension Service continued to give its aid and cooperation to the milk marketing organizations, which have functioned so effectively for a number of years.

The records of the three cooperative organizations through which Maryland dairymen market their products are something of which every member may well be proud, particularly of the success achieved during the years when problems in marketing of farm products, including dairy products in prac-



*Members of the 4-H dairy judging team that represented Maryland at the National Dairy Show in Columbus, Ohio. From left to right—Samuel Slack; Howard Barker, coach; Robert Stiles, alternate; Willis Smith; Norman Rounds; and Mylo Downey, assistant club agent.*

tically all other sections of the country, were so acute. The Maryland Milk Producers, Inc., serves those shipping to the Baltimore market, the Inter-State Milk Producers' Association serves those shipping to the Philadelphia market, and the Maryland-Virginia Milk Producers' Association serves shippers to the Washington market. Specialists and administrators at headquarters, and the agents in the respective counties worked closely with these organizations, both in educational efforts to improve conditions and the quality of products, and in their relations with members and distributors.

**Official Testing**—Supervision of records in connection with the various breed associations falls into two main divisions—Herd Improvement Testing and the regular Advanced Registry work, each of which increased during the year. The Herd

Test requires that the whole herd be tested, while in the regular Advanced Registry, or Register of Merit Work, individual cows are tested.

On December 1, 1928, 47 Maryland breeders were testing 429 cows, and on December 1, 1937, 76 breeders were testing 1,449 cows.

The fact that this work has increased steadily throughout the last ten years is conclusive evidence of the interest on the part of purebred breeders in improvement of their dairy animals. The bulk of the increase in recent years has been in Herd Testing, although the last year showed more than 13 per cent increase in Advanced Registry testing.

Those who had cows entered for official testing were kept informed on the progress of the work by a mimeographed publication issued monthly and called the "Advanced Registry News."

Mere figures as to the number of breeders participating and the number of cows being tested give only a very inadequate impression of the real value and importance of the work, or the extent of effort and diligent care involved. Accurate records are becoming more and more a basis for improvement in herds and breeds, and helping to obtain the records requisite for such improvement is a basic and far-reaching contribution to the industry.

**Herd Improvement**—While this project involves cow testing, it differs from the official testing work just described in the fact that the results of the tests are primarily for the purpose of enabling owners of cows to determine those which are profitable producers and those which make little, if any, profit. There are Herd Improvement Associations in 11 counties, one new association being formed in 1937. Approximately 5,200 cows were tested regularly throughout the year and records were kept of the production and other facts pertaining to each cow. This information was supplied to owners for their guidance, together with advice as to feeding, care and management.

Reports indicate that dairymen generally are becoming more particular in selection of the sires to be used on their farms. The Herd Improvement Association provides an organization through which all phases of improvement may be promoted, by meetings of the association, by the tester on his regular

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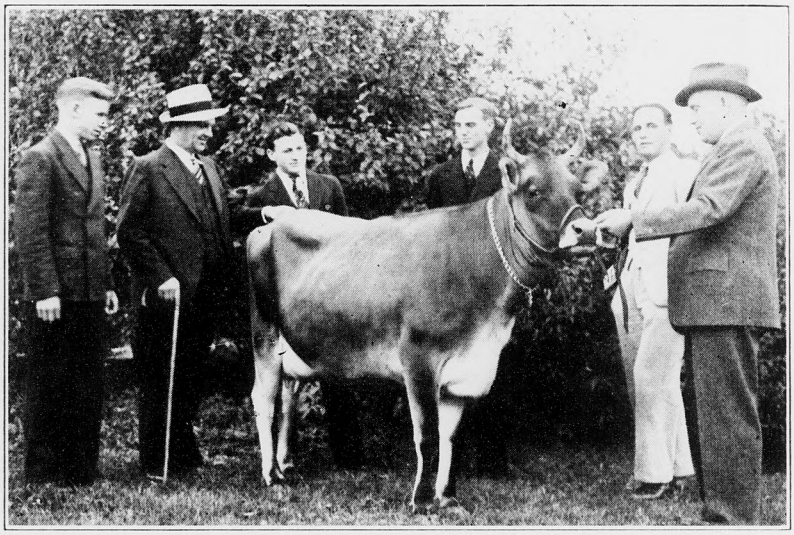

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Mere figures as to the number of breeders participating and the number of cows being tested give only a very inadequate impression of the real value and importance of the work, or the extent of effort and diligent care involved. Accurate records are becoming more and more a basis for improvement in herds and breeds, and helping to obtain the records requisite for such improvement is a basic and far-reaching contribution to the industry.

**Herd Improvement**—While this project involves cow testing, it differs from the official testing work just described in the fact that the results of the tests are primarily for the purpose of enabling owners of cows to determine those which are profitable producers and those which make little, if any, profit. There are Herd Improvement Associations in 11 counties, one new association being formed in 1937. Approximately 5,200 cows were tested regularly throughout the year and records were kept of the production and other facts pertaining to each cow. This information was supplied to owners for their guidance, together with advice as to feeding, care and management.

Reports indicate that dairymen generally are becoming more particular in selection of the sires to be used on their farms. The Herd Improvement Association provides an organization through which all phases of improvement may be promoted, by meetings of the association, by the tester on his regular

visits, and by the information provided owners regarding each cow in their herds.

The permanent record system established by the Dairy Bureau of the U. S. Department of Agriculture promises to add interest and value to work in this line, and to increase the number of farmers participating. To those who wish to follow a long-time breeding program, it affords an opportunity for keeping a life history record of each cow and recording the permanent records in the office of the U. S. Dairy Bureau.

**Breed Associations**—Much credit for the development of the dairy industry in Maryland belongs to the active associations representing each of the principal breeds of dairy cattle. These organizations are carrying out constructive programs, which not only afford opportunities for cooperation by the Extension Service, but also provide valuable support to the extension program. Their efforts were especially effective in connection with various types of shows and fairs, field days, promotion of dairy 4-H club work, tours, sales of dairy animals, and a number of special projects undertaken or fostered by the respective associations.

**Purebred Sires**—There are in Maryland approximately 3,400 dairymen who have one or more purebred females, including all dairy breeds. A comparatively few of these men follow a practice of raising bulls for sale. Therefore, with the 10,000 Maryland dairymen who must be supplied with bulls, there is apparently an excellent opportunity for a comparatively small number of breeders who sell purebred bulls.

For the last four years, a special effort has been made to assist Maryland dairymen and breeders in selection and purchase of the right kind of sires. No systematic method was employed, but in spite of this fact, a considerable number of bulls are placed each year. The Maryland bull sales have become an important project in extension work and have served not only to furnish a market for breeders who have bulls for sale, but also have made it easy for dairymen who are in the market for bulls.

**Dairy Farm Management**—Practical problems associated with efficient production of dairy products were dealt with in large numbers, both by the specialists and agents. Aid of this

character was rendered to a large number of dairymen and covered a wide range of effort. While many of the management problems are not so broad in their aspects as some of the other phases of service, each of them is of great importance to the person or persons seeking aid and the total effect of such assistance ranks as a most valuable part of dairy extension activities.

More than ordinary interest was shown in two subjects. A number of dairymen became interested in making molasses legume or grass silage and the specialist supplied information and advice on the subject. Favorable reports from those who made and used this type of silage led the specialist to state in his annual report, "We have always thought that corn was pre-eminently the best crop for ensiling, but we may change our views in this matter."

Another development in the farm management line was the use of lath silos. While most dairy farms in Maryland have permanent silos, this type of temporary silo apparently has a place, both on farms operated by tenants and on farms operated by owners who find they need some additional silo capacity. Information on temporary silos was supplied to those interested.

**Bang's Disease**—Members of the extension force cooperated with the Livestock Sanitary Service in the campaign for control and eradication of Bang's disease. This campaign made excellent progress during the year.

## MARKETING

ALL ACTIVITIES in the field of marketing conducted by the Extension Service are closely integrated. In general, the Department of Markets seeks to develop proper, efficient and economic distribution of farm products; foster and assist in development of cooperative activities; promote direct personal contact between producers and receivers; and assemble, classify and disseminate helpful information on all phases of marketing. It maintains cooperative relations with Federal agencies in the development and promulgation of the soil conservation programs, marketing agreements, and distribution of surplus commodities.

In addition to extension activities, the Department of Mar-

kets supervises joint Federal-State inspection of agricultural products, as provided for under cooperative agreements with the Federal Government.

**Inspection Service**—As conducted in Maryland, inspection of farm products is much more than a mere classification as to grades. Inspectors are carefully selected from the standpoint of making the work as educational as possible. Inspection is made to assume the nature of demonstrations wherein growers are instructed and shown the best methods of preparing and offering their products for sale, as well as impressed with the value and importance of high-quality products of recognized grades and standards. Whenever practicable, aid is given growers and packers while they are preparing their fruits and vegetables for market, in order that they will meet the desired grade requirements.

The total value of agricultural commodities officially inspected and certified during 1937 was approximately $1,982,916. These included sweet potatoes, fresh tomatoes, canning crops, Irish potatoes, apples, peaches, strawberries, cantaloupes, eggs and dressed poultry.

**Problems in Grading**—Before the desired service can be rendered with respect to some commodities, it is necessary to find satisfactory solutions to certain problems. Two years ago several canners expressed a desire to buy peas on a graded basis and requested inspection of the raw product. Grades were not available and it became necessary to undertake such work as would provide a basis for establishing grade specifications. In cooperation with specialists in various related fields, other agencies of the University, the Tri-State Packers' Association, several leading canners and other agencies, the work was started and has been continued at five points in the State. Methods have been devised and tested to the point that they appear to be sufficiently rapid and satisfactory for cannery use, and during the season 643 tons of raw peas were actually inspected for one canner. While further work is necessary to perfect the methods, it is believed that the foundation is laid for valuable service to those interested in this phase of the canning industry.

Similar problems arise from time to time in connection with other commodities and every effort is made to solve them, to

the end that the service desired and requested may be rendered in a satisfactory manner.

**Purchase of Surplus Commodities**—Considerable quantities of a number of farm commodities were purchased in Maryland during the year by the Federal Surplus Commodities Corporation, with a view to stabilizing the market and the prices paid producers. The Department of Markets of the Extension Service cooperated actively by providing the necessary inspection, and in some cases its inspectors acted as receiving agents for the Corporation. Potatoes, sweet potatoes, apples and eggs were among the commodities purchased. Arrangements were made for purchase of canned tomatoes from Maryland packers at a time when there was prospect of a large cannery tomato crop, but weather conditions curtailed production to the point that no tomatoes were offered by canners for Government purchase.

**Special Marketing Campaigns**—Following a number of conferences, in which representatives of a large drug store chain and various agencies of the University participated, arrangements were completed whereby the chain of stores, operating principally in Baltimore, agreed to feature Maryland cantaloupes, provided it received only the highest quality and of uniform size. Similar arrangements were made later with a drug store chain operating mostly in Washington. The purchasing agents for these organizations displayed keen interest, visited the cantaloupe producing section just prior to the shipping season, and personally met growers and packers.

This selling campaign was a great success, according to reports, particularly from the standpoint of quantity disposed of, and also by acquainting consumers with the fact that Maryland produces as fine cantaloupes as can be grown. Only one percent of the cantaloupes sold to those stores were unfit for use, as against about 50 percent normal wastage, according to officials of these stores.

An effort was made to interest the same stores in Maryland "cold pack" strawberries, and it resulted in the sale of 8,500 pounds of that product. Similar interest was shown by the chain stores in purchase of peaches for use at their fountains and lunch counters, but there was a lack of interest among growers.

**Eggs and Poultry**—Requests for inspection and certification of eggs continued to increase. Twelve firms had 1,830,183 dozens of eggs inspected, of which 447,010 dozens were marketed in cartons under certificates of quality. This is an increase of 160 percent over the number inspected last year. Several producers have consistently sold their eggs on a graded basis to one firm for a period of four years, which indicates the satisfaction with that method of sale.

During the year 19,082 pounds of dressed poultry were inspected and certified. Several conferences were held with a view to ascertaining whether an interest could be aroused in the purchase of turkeys on the basis of grades and standards. There was an apparent need for educational work among consumers to develop grade consciousness.

**Seed Certification**—The Department of Markets functions with the Maryland Seed Certification Board as the official certifying agency for seed that complies with the specifications made by the Board. A total of 1,061 sacks of potato seed was certified in 1937, but the demand for certified seed potatoes was very slow.

One thousand pounds of Marglobe seed and 100 pounds of Rutgers tomato seed were certified.

**Assistance to Cooperatives**—Maryland is proud of the records made by its cooperative marketing organizations and every encouragement and aid was given to them. This included assistance in dealing with problems encountered by the existing cooperatives, and also educational efforts designed to strengthen and extend the cooperative movement within the State and region.

The Hillsboro-Queen Anne Cooperative Corporation had a notable part in solving an acute problem that confronted growers of snap beans as a result of a strike in the canning industry. Representatives of the Service assisted in the satisfactory solution of that problem.

Other cooperatives with which the Department of Markets worked closely were the three milk marketing associations, Maryland Tobacco Growers Association, Eastern Livestock Cooperative Marketing Association, Southern States Cooperative, Brunswick Cooperative Association, Rockawalkin Co-

operative Association, and the various cooperative efforts fostered by the Maryland Farm Bureau. The problems offered and type of assistance needed vary from year to year, but it is gratifying to know that these important organizations recognize that they can depend upon the Service for such assistance as may be needed.

**Other Activities**—This brief summary has dealt almost entirely with some of the more specific services rendered, rather than the educational efforts that have been made in various ways with a view to improvement in marketing conditions surrounding Maryland's widely diversified farm products. Such education is the foundation of progress and is essential both before specific projects are launched and throughout their lifetime, if they are to succeed. It is logical, perhaps, to record the more definite accomplishments, but it must be kept in mind constantly that they are the result of effective educational efforts and that major attention is given to that phase of the work.

## POULTRY

DEMANDS of the poultry organizations for cooperation in broader programs of activities, as well as in problems involving research and regulatory work, so taxed the resources of the Service and the University that a reorganization and improvement in facilities became a necessity.

Through extension work and administration of the breed improvement activities of the National Poultry Improvement Plan, together with added capable personnel in research and teaching, more effective cooperation with the industry in meeting its problems is already apparent.

**Industry Organization**—Assistance was given the Maryland State Poultry Council in developing its program of projects during the year. Some of the more outstanding accomplishments in this field include:

1. *Poultry Products Show*—More than 400 entries of eggs and baby chicks competed for honors in this show, which was held in conjunction with the meetings of the Farm Bureau and affiliated organizations.

2. *State Poultry Transportation Law*—This law was enacted as a result of cooperation between the State Poultry Council and other agricultural organizations. It provides for licensing vehicles transporting poultry on Maryland highways and is administered by the State Department of Markets. It is believed that this law, as a supplement to the system of tattooing birds that was inaugurated by the Council, will provide an effective program in curbing poultry thieving, which has caused losses to producers in many parts of the State.

3. *International Baby Chick Association*—The convention and exposition of this organization brought to Baltimore 5,000 poultrymen, of which nearly 1,600 were Marylanders. It was the largest attendance from any host state in the 17 years of the I. B. C. A. It was the largest event of the poultry industry in the history of the State and served to focus attention on the magnitude, as well as the problems of the industry.

4. *General Organization Work*—Cooperation was given county and other organizations affiliated with the State Poultry Council on various local industry problems and activities, such as educational meetings, poultry products and shows.

5. *Northeastern Poultry Producers Council*—Through the State Poultry Council, cooperation was rendered the Northeastern Poultry Producers Council in its program of educational and other activities pertaining to regional and national poultry problems.

**Farm Egg Record Project**—Records from 71 poultrymen who cooperated in this project in 1937 show the highest average egg production per bird since this work was started in 1929. A summary of the data for the eight years the project has been conducted definitely indicates the trend towards more efficient management among cooperators and also points out some of the principal problems of the industry.

**Quality Egg Program**—In addition to the Egg and Chick Show of the Maryland State Poultry Council, special effort was made to aid producers, as well as consumers, to appreciate the advantages of high-quality, native eggs. A series of five novel circular letters emphasizing in caricature the important factors in egg quality were sent to more than 1,500 producers and leaders.

Cooperation with a chain drug company operating 45 lunch counters in featuring high-quality Maryland eggs in novel recipes during the I. B. C. A. convention and throughout the summer served to focus attention of consumers on egg quality and consumption in an effective manner. An increase of 88 percent in egg volume handled was reported by this company for the first week of the special drive. Work of this type is an effective means of developing better local markets for our native fancy products.

*A section of the egg exhibit at the Maryland Farm Products Show.*

**Poultry Improvement** — Reorganization of the Maryland Poultry Improvement Board to provide industry representation, and a series of 32 meetings throughout the State featured the educational work in this line. A State Turkey Improvement Plan was adopted during the year with five breeders cooperating in the breeding program.

**Breed Improvement and Disease Control**—This year 527 flock owners in 17 counties, with a total of 137,087 birds were able to qualify under the Poultry Improvement Plan for a breeding stage, pullorum control class, or both. While this is

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no more than last year, there was an increase of 112 percent in flock owners who participated in both the breeding and pullorum control work. Heretofore, most flock owners participated in pullorum control work only.

The increase in number of hatcheries participating in the work was very gratifying. This year, 24 hatcheries were able to qualify under the Plan, while last year not a hatchery in the State qualified. Twenty-two qualified for both a breeding stage and pullorum control class, and the other two for a pullorum control class only.

## ENTOMOLOGY

GROWERS of various crops have become accustomed to relying upon certain established services for controlling insects which would otherwise cause great damage. Such services are continued from year to year, with such improvements as may be developed in the interest of efficiency, and there are also a number of special problems with which the Extension Service is called upon to assist.

**Insects Injurious to Fruits**—Weather conditions in the latter part of July and early August brought about a very large increase in the second brood of the codling moth, which required special attention. A survey showed that growers who were well equipped with either stationary or portable spraying outfits, and in some instances with washing machines, were able to keep the codling moth down to very low percentage. In under-manned and under-equipped orchards the codling moth increased tremendously and the percentage of injury increased the average for the State to practically the same as the 8-year average. Orchard sanitation was stressed and a special drive will be made to reduce infestation through that means and by better spraying. Unless these recommendations are carried out, together with better equipment, there is probability that many orchardists will experience a build-up that will possibly make the maintenance of some orchards unprofitable.

Effective work was done on the control of plum curculio in the orchards of Western Maryland, particularly on the peach crop. This department also continued its cooperation with the Bureau of Entomology and Plant Quarantine in dissemination and collection of parasites of the oriental fruit moth, both in Western Maryland and on the Eastern Shore.

**Insects Injurious to Canning Crops**—Early in the season it was evident that the pea aphis was developing. A series of service letters was sent to pea canners through the Tri-State Packers' Association, and a series of demonstrations was arranged, particularly on the Eastern Shore, where the infestation was very heavy. Demonstrations were staged later in the western part of the State. In this way, growers were made acquainted with the most effective means and methods for controlling the pest and reducing the injury.

Demonstrations in control of corn earworm consisted mainly of the use of poison bait. This method, along with de-silking reduced earworm damage to a large extent.

**Horn Worm**—There was a severe outbreak of the tobacco horn worm in Southern Maryland, the insect appearing in great numbers during late summer and attacking nearly mature tobacco in the field. Because of the arsenical residue likely to result from dusting at that time, little could be done to control the insect. Demonstrations were carried on to determine the effectiveness of Pyrethrum and derris dusts in the field. It was found that Pyrethrum dust and ¾ percent rotenone-derris dust gave about 50 percent kill of the worms.

Control measures in the barns were necessary, as some tobacco went to the barns with large numbers of eggs and worms on it. On one farm, applications of pyrethrum dust were made by means of a hand duster and a tremendous number of worms were killed.

**Japanese Beetle**—A most successful tour was conducted in Cecil County and in Southern New Jersey to demonstrate to farmers the injuries that might be expected when the Japanese beetle infestation becomes heavy. The people who made this tour and saw the extent of damage done by the pest have contributed materially to the success of the campaign now being waged for community assistance in a control program that is planned for the coming year. Other educational work carried on in recent years has helped to lay the foundation for the extensive control campaign that is now under way.

**Insects of Flowers and Ornamentals**—Each year brings a large number of calls for assistance in dealing with insects causing injury to the wide variety of ornamental plants grown

in the State. These come from commercial growers and from those who are interested in their home grounds. Specialists of the Service are in great demand for talks on insect control before garden clubs and such organizations.

Only a few of the problems to which special attention was given are mentioned here. Due to the increased interest in holly as an ornamental, a great many calls were received in regard to the holly leaf miner, which is found in all sections of Maryland. Methods for control of this pest were worked out and demonstrated, and the information was distributed to nurserymen growing ornamental holly.

Special attention was given also in gladiolus thrips, from which growers have suffered heavy losses in recent years. Control of thrips in orchid houses, scales on palms, ferns, and poinsettias, mealybugs on gardenias, and the azalea leaf miner, were among the problems presented by operators of greenhouses and with which assistance was rendered.

**Mosquito Control**—Eighty percent of the tidal marshes of Worcester County have been ditched for control of mosquitoes that inhabit tidal marshes,, particularly the so-called salt marsh mosquito, and it is expected that the remainder of the ditches will be completed, with the exception of a small area near the Virginia line. Records for the year, as obtained from electrically operated traps, indicate a decided reduction in mosquitoes over the entire area, although the protection afforded towns in the southern end of the county is not nearly as good as in the upper end of the county because of unditched areas over the Virginia line and in the lower portion of the county.

This work was conducted throughout with a view to maintenance of favorable conditions for muskrat breeding and for maintenance of resting places and feeding areas for ducks. It is hoped that the reduction of mosquitoes will serve as a demonstration to the State at large of what can be accomplished by proper ditching, and that ultimately a State-wide enabling act will provide means for carrying on work in all areas bordered by tidal marshes.

**Miscellaneous Insects**—Identification of insects and correspondence with respect to specific pests increases each year. Work in connection with household pests demands more at-

tention, particularly the inspections for termites, powder post beetles, black carpet beetles and roaches.

There was an extremely heavy infestation of bagworms, and a very large number of letters received regarding that pest. Pests of ornamentals and shade trees that were especially numerous during the year include European elm scale, juniper scale, locust leaf miner, the southern pine bark beetle, pine tip moth and an undetermined pest of wild cherry in Garrett County. The garden Symphillid, a relatively new pest of greenhouse crops, appeared in two new places and did considerable damage.

## APICULTURE

AS IN PREVIOUS YEARS, a particular effort was made to increase the scope of extension work in apiculture, so that a larger number of the 3,000 Maryland beekeepers would receive help from the University.

**Beginners' Schools**—As a method for reaching a larger number of beekeepers than could be done by individual instruction and giving instruction on a number of phases of beekeeping, schools for beginners in three localities proved an outstanding success. One night each week for a period of ten weeks was devoted to each school and in that way a considerable amount of fundamental and practical information was given. The splendid reception given the schools held last year and requests from nearly four times as many counties for such schools assures their place in the program for the coming year.

**Colony and Apiary Management**—Good wintering, proper spring increases, and control of swarming are points on which there is still need for emphasis in the management of bee colonies in Maryland. With this fact in mind, it was a major aim to teach as much bee and colony behavior as possible; to recommend the best hive equipment; and to ground the beekeeper in methods of equipment manipulation found best under Maryland conditions.

**Bee Diseases and Inspection**—It is the belief of the extension specialist in bee culture and many beekeepers that only a thorough-going, State-maintained inspection service can stop the losses caused by American foulbrood, and that until such a service is established, bee culture in some sections will be a

precarious undertaking. With the force available, only a very limited amount of inspection work can be done each year, but it has been sufficient to impress those in touch with the situation with the importance of more adequate efforts in that line.

**Honey Marketing and Publicity**—Workers in apiculture are generally in accord in the belief that the greatest drawback to the honey business in former years was the lack of any real, worthwhile advertising of the product. With this in mind, an effort was made to secure as much advertising for honey in Maryland as possible, with no funds and limited facilities available. By means of radio talks, exhibits and printed and mimeographed material, the value and wholesomeness of honey was presented as widely as possible. The interest and development in the way of exhibits were notable features of the effort.

**International Beekeepers' Conference**—Largely through the influence of the specialist in apiculture, who served as secretary-treasurer of the American Honey Producers' League, the annual meetings of that organization were held in Washington, D. C. This afforded beekeepers of Maryland an excellent opportunity to attend and participate in the educational features of the event.

## PLANT DISEASE CONTROL

AS GREATER emphasis is placed on the quality of farm products, the control of plant diseases and reduction of the tremendous damage done by them annually to Maryland crops becomes more and more important. Efforts in that line by the Extension Service naturally fall into two main categories. Almost every year there are problems in connection with one or more crops which because of weather conditions or other factors favorable for development of certain diseases require especial attention. Then, there are diseases causing serious damage to principal crops on which a persistent warfare is waged throughout a number of years with a view to eradicating them or, at least reducing their damage to a minimum.

**Tobacco Diseases**—Prevalence of blue mold was largely responsible for a reduction of 1,500 acres in the tobacco crop. With the cooperation of the U. S. Department of Agriculture, demonstrations of methods for control of blue mold and wildfire

were conducted in three of the five tobacco growing counties.

These demonstrations, which consisted of carrying out a spray program, were made on the plant beds of nine farmers. They represented a total of 4,140 square yards of bed area. Plants taken from the sprayed beds were free from wildfire and practically free from blue mold. Twelve thousand plants were drawn from the sprayed beds and given to 18 farmers to plant adjacent to their own unsprayed plants. The stand in the field from sprayed plants was decidedly better than from unsprayed plants.

**White Potato Diseases**—Recognizing a number of years ago that disease control is one of the limiting factors in profitable potato production, and in view of the value of the crop, a determined and persistent campaign has been carried on through the years. As a result, the potato producing industry has been placed on a much more stable basis and, in fact, what is practically a new industry in the State has been developed in the way of producing home grown seed that is known to be free from disease and adapted to conditions in Maryland and neighboring states.

New varieties of potatoes which have been developed in the potato breeding program of the U. S. Department of Agriculture in cooperation with various states are being compared with the commercial varieties grown in Maryland. The value of some of these new varieties, such as Warba, Katahdin and Chippewa, for planting in Maryland has been demonstrated and they are being grown quite extensively.

Spraying demonstrations were continued and yields from plots sprayed with Bordeaux mixture were again larger than yields from plots sprayed with other materials.

**Sweet Potato Diseases**—Factors emphasized in control of diseases of sweet potatoes included use of disease-free seed, treatment of seed by approved methods, seed-bed sanitation, plant treatment, crop rotation, careful handling at digging time and during transit to and from the storage house, and the importance of proper storage house construction and management.

Means were provided for certification of sweet potato seed and 7,700 bushels of sweet potatoes met the requirements for certification.

**Cereal Diseases**—Progress is made each year in extending the use of practices designed to reduce damage by diseases of the cereal crops. Many of these practices have become standard with a large percentage of farmers, but considerable effort is still required to further reduce the costly damage suffered. By demonstrations and other available methods farmers were encouraged to use careful selection of seed, proper storage conditions, correct fertilization and crop rotation as means of controling diseases of corn.

A recent development in the treatment of seeds of small grains gives promise of being effective. Several grain dealers have installed seed treatment machinery and farmers who have planted seed treated with these machines have found the treatment a profitable investment.

**Diseases of Fruits**—Practically all the commercial orchardists in the State now follow the recommendations of the spray service that has been operated jointly with those in charge of insect control for a number of years. Specialists make a careful study of disease development in orchards throughout the State and issue advice regarding the best time to spray and the best material to use. This information is brought to the attention of growers personally by cards sent by county agents.

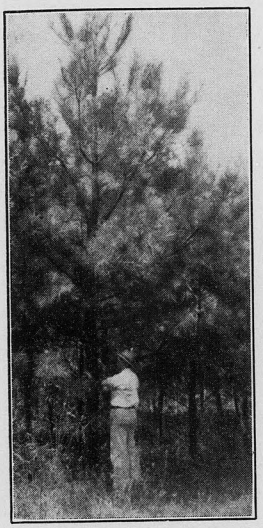
**Other Plant Diseases**—More or less time each year is devoted to a wide range of plant diseases. Among the control practices demonstrated on crops was the use of Western grown seed for control of bean diseases; use of yellows resistant cabbage and wilt resistant varieties of watermelons; spraying cucumbers and cantaloupes; weed control and roguing for control of cucumber mosaic and use of wilt resistant varieties of tomatoes.

## FORESTRY

THE PROGRAM carried on by the AAA and activities of the CCC were helpful in focusing attention upon forestry problems and bringing forest practices before the public, with the result that work in this line was more extensive than in former years.

Through cooperation with agencies employing enrollees of the CCC, it was possible to improve the stand of timber on 142 farms. These treated areas involved 710 acres of land

containing young timber in need of thinning in order to accelerate growth and also to improve the quality of timber in the resultant stand.

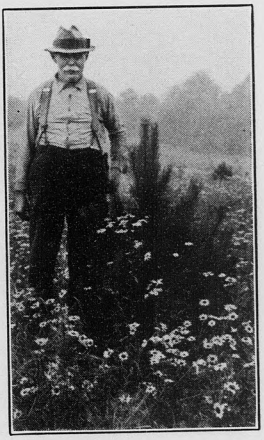


*Six-year-old loblolly pine planting in Talbott County.*

The Extension Forester examined proposed tree planting sites for 17 farmers and advised them concerning the proper species of trees to plant and proper methods of planting. These examinations included 148 acres of land, and private individuals and governmental agencies planted 300 acres of land to forest during the year.

Assistance was given to farmers in disposing of their mature timber. This service consisted of marking the mature trees on 724 acres of land and helping to sell these trees on the basis of competitive bidding.

Forestry information was disseminated by lectures, demonstrations, letters, bulletins and radio talks. Personal contact, however, with landowners on the ground was the most effective method for spreading useful information.



*Four-year-old red pine planting in Baltimore County.*

Sixty boys were instructed in tree identification and were taken on a tour which showed practical forestry practices and commercial logging and milling operations. These woods operations were entirely new to many of the boys, but could be applied profitably to their farm woodlots.

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A recent development in the treatment of seeds of small grains gives promise of being effective. Several grain dealers have installed seed treatment machinery and farmers who have planted seed treated with these machines have found the treatment a profitable investment.

**Diseases of Fruits**—Practically all the commercial orchardists in the State now follow the recommendations of the spray service that has been operated jointly with those in charge of insect control for a number of years. Specialists make a careful study of disease development in orchards throughout the State and issue advice regarding the best time to spray and the best material to use. This information is brought to the attention of growers personally by cards sent by county agents.

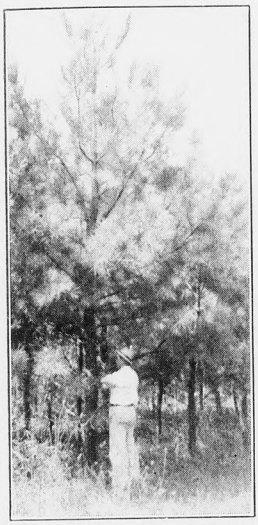
**Other Plant Diseases**—More or less time each year is devoted to a wide range of plant diseases. Among the control practices demonstrated on crops was the use of Western grown seed for control of bean diseases; use of yellows resistant cabbage and wilt resistant varieties of watermelons; spraying cucumbers and cantaloupes; weed control and roguing for control of cucumber mosaic and use of wilt resistant varieties of tomatoes.

## FORESTRY

THE PROGRAM carried on by the AAA and activities of the CCC were helpful in focusing attention upon forestry problems and bringing forest practices before the public, with the result that work in this line was more extensive than in former years.

Through cooperation with agencies employing enrollees of the CCC, it was possible to improve the stand of timber on 142 farms. These treated areas involved 710 acres of land

containing young timber in need of thinning in order to accelerate growth and also to improve the quality of timber in the resultant stand.



*Six-year-old loblolly pine planting in Talbott County.*

The Extension Forester examined proposed tree planting sites for 17 farmers and advised them concerning the proper species of trees to plant and proper methods of planting. These examinations included 148 acres of land, and private individuals and governmental agencies planted 300 acres of land to forest during the year.

Assistance was given to farmers in disposing of their mature timber. This service consisted of marking the mature trees on 724 acres of land and helping to sell these trees on the basis of competitive bidding.

Forestry information was disseminated by lectures, demonstrations, letters, bulletins and radio talks. Personal contact, however, with landowners on the ground was the most effective method for spreading useful information.

*Four-year-old red pine planting in Baltimore County.*

Sixty boys were instructed in tree identification and were taken on a tour which showed practical forestry practices and commercial logging and milling operations. These woods operations were entirely new to many of the boys, but could be applied profitably to their farm woodlots.

## CANNING CROPS

THE principal change in extension activities with canning crops in 1937 consisted in placing somewhat greater emphasis on some crops and correspondingly less emphasis on others, as compared with former years. Extensive efforts to develop a satisfactory method for marketing raw peas on the basis of grades necessitated some curtailment in activities with snap beans and lima beans.

**Variety Demonstrations**—Up-to-date results of the yields and qualities of varieties of canning crops are important essentials at the present time. There never was a time in the past when so many new varieties of all of these crops were being put on the market. Many of these have been developed to give improvement in quality rather than increase in yields, and there is a very definite effort in the State to improve the quality of the various packs. Some of the new introductions, notably early sweet varieties of canning peas and Golden Cross Bantam sweet corn, are making it possible for the Maryland canners to enter a new and less competitive field of distribution.

Most of the new varieties and strains are placed in elimination trials and variety tests by members of the Experiment Station staff. Canning crops specialists then conduct demonstrational plantings of the most promising varieties and strains on a sufficiently large scale to indicate their value to canners and growers. Assistance was given also in determining the canning qualities of varieties before they were recommended to the industry. This phase of the work has increased greatly and appears to be of major interest.

**Improvement of Seed Stocks**—In accordance with the efforts of many Maryland canners to improve the quality of their packs and to enter quality markets, increased attention has been given to activities designed to assure seed stock of better quality. The work has grown to include varietal improvement, seed certification, and seed stock trials for those crops where the particular type of work seems most desirable.

Seed stock trial grounds for samples of peas and sweet corn have appeared of such value that similar trials may be at-

tempted in coming years with all of the major canning crops. Each canner is asked to submit samples from as many different lot numbers as he desires. These are planted in trial plots, which are labeled with the seedmen's names and lot numbers. The comparative plantings give each canner and seedman an opportunity to observe the type and relative quality of the different lots. They indicate also the seedmen who are delivering inferior stock. A general improvement in the quality of pea seed sent into the State is evident and it is believed that these trials deserve a share in the credit for that improvement.

*Tomato stock seed production is carried on in cooperation with the Tri-State Packers' Association. Individual plants are selected, from which seed is saved separately and planted in individual rows the next year. Seed from these rows is used for commercial acreage the third year.*

A special work in improvement of tomato seed has attained a high degree of success. It was started with a view to furnishing a readily available source of true-to-name and high-quality seed for Maryland canners and growers. Work of this character during the past year was carried on with both the Marglobe and Rutgers varieties. The method consists of in-

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dividual plant selections and progeny trials. Stock seed is saved from the desirable progeny-trial plots, and is used by the Association for planting its commercial seed fields.

**Tomato Seed Certification**—This activity was conducted on a large scale for a number of years, with the Tri-State Packers' Association. Due to difficulty during the last few seasons in arranging for the seed-saving operation at a convenient plant in Maryland, the acreage was located temporarily outside the State. In all probability it will be carried on here again next year. Approximately 1,000 pounds of Marglobe and 100 pounds of Rutgers seed were certified in 1937.

**Ten-Ton Tomato Club**—The aim of this contest is to stimulate interest in better production practices, and 1937 was the tenth consecutive year in which it has been conducted. It is carried on in cooperation with the Tri-State Packers' Association and there were 191 growers from seven counties enrolled. Due to the fact that tomato yields were exceptionally low the past year, only three growers succeeded in making the required 10 tons to the acre. They deserve special credit, in view of conditions, even though their yields were not as high as have been made in some years. Those qualifying were: Paul D. Rosser, Federalsburg; E. Raymond Slaughter, Trappe; and Albert Retallack, Oxford.

**Disease and Insect Control**—Most of the major canning crops are seriously injured by diseases and insects, and the annual losses are enormous. Since these crops in most sections are generally considered as field crops, the growers have been slow to make appreciable cash outlays for control measures. With some specific troubles, however, they have become aware of the seriousness and are attempting control. Some of the phases emphasized during the year were: Use of clean seed, particularly pea and bean seed from the dry farming areas of the West; seed treatment of tomatoes, peas and sweet corn for seed-borne diseases; use of varieties resistant to important diseases and insect pests; crop rotations for control of soil-borne diseases; spraying and dusting, wherever the controls seem economically justifiable; and general cultural practices which tend to reduce losses from one or more of these troubles.

**Soil Improvement and Fertilization**—Most of the soils in the canning crop areas are lacking in organic matter. While correction of that deficiency is a long-time process, a persistent effort is being made to impress the necessity of using cover and green manure crops in the rotation as often as practicable. This line of work is strengthened by the soil conservation program and is coordinated with that program.

*Aphids were particularly bad in some fields of peas in 1937 and appeared earlier than usual. Spraying with "derris," a comparatively new spray, gave considerable promise as a means for controlling that pest.*

Soil testing work has opened up a new approach for fertilizer recommendations and now many farmers are advised annually the particular analyses needed for their soils. A large-scale demonstration in proper fertilization for beans was carried on with one canner and grower. Granulated fertilizers were used in several demonstrations in comparison with pulverized forms. A number of farmers in the vegetable sections have purchased and are using side-placement machines for fertilizer applications.

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## TOBACCO

THE tobacco crop occupies a peculiar place in the economics of Maryland agriculture, since it is confined almost exclusively to five Southern Maryland counties and constitutes the major source of income in that section. Extension activities were concerned with a number of practices involved in production, handling and marketing of the crop.

**Production of Vigorous Plants**—Efforts to increase the number of growers using seed of leading varieties of tobacco were continued. It is estimated by the specialist that nearly one-half the growers use strains or hybrids of unknown origin, which produce low yields of tobacco that is inferior in color and quality. Fifty-seven growers were induced to grow tobacco from seed of the leading varieties and records of these demonstrations showed returns of approximately $33 per acre more than from the miscellaneous types.

Another practice followed quite generally is the use of seed that has not been cleaned nor tested for germination. As a result, the stand of plants in tobacco beds is uneven, and the quality of plants is likewise uneven. In cooperation with the Seed Laboratory of the University of Maryland, 467 lots of seed were cleaned and germination tests were made for growers. It is difficult to place a value on this service, but it is evident that thousands of dollars may be gained by following the practice of sowing clean seed of known germination.

**Control of Weeds in Seed Beds**—Demonstrations were started to determine the effectiveness of calcium cyanamid as an agent for preventing growth of weeds in tobacco seed beds. Results will not be available until plants are grown in 1938. The importance of work in this line is apparent to all who are familiar with the burdensome and expensive task of picking grass and weeds from tobacco seedlings, the severe injury to seedlings as a result of the operation, the likelihood of spreading disease, and the expense of sterilization by steam.

**Tobacco Diseases**—Wildfire and blue mold, particularly blue mold, have taken a heavy toll of plants each year for the last six years. Blue mold was exceptionally bad in 1937 and, as a result, hundreds of growers failed to plant their normal crop.

Field demonstrations of control methods in two counties proved quite successful. Not only did the growers cooperating in the demonstrations have enough plants for their own use, but they were able to supply their neighbors with many plants. Very definite recommendations will be made for preventing wildfire and blue mold in 1938.

**More Tobacco of Better Quality**—It is estimated that more than one-third of the tobacco growers produce low yields per acre, and poor quality and color are frequently associated with the low yields. A method for assisting growers to produce better tobacco has been organized by the Extension Service in cooperation with the Soils Department of the University. Representative samples of soil are analyzed and with this information, together with a history of past soil treatment, the specialist is able to make detailed recommendations for production of larger yields of better tobacco. This is a type of service that tobacco growers of Maryland have been anxious to receive for many years. It promises to be far-reaching in its effect, as it frequently leads to better crop rotation, soil improvement and farm management.

**Soil Fertilization**—Problems connected with application of fertilizers formed the basis of a number of demonstrations. The value of side dressing tobacco with sulphate of potash 30 days after transplanting was demonstrated by nine growers. The tobacco on all plots made a larger growth, ripened earlier, had a tenderer leaf and a brighter color than tobacco grown on check plots.

Comparisons of the value of granulated and pulverized fertilizer were made in four demonstrations, from which the results are not yet available.

**House Burn**—For many years tobacco growers have suffered heavy losses from house burn, a condition brought about by prolonged wet weather during the curing process. Nine demonstrations in prevention of this trouble were arranged and a commercial concern cooperated by furnishing 5,000 pounds of compressed charcoal and nine hydrometers. Observation and testimony by growers are to the effect that those who fired early and constantly practically prevented house burn, while those who made no attempt to use artificial heat suffered heavy losses.

## AGRICULTURAL ENGINEERING

MECHANICAL devices and mechanical power become of increasing importance on farms and in farm homes each year and the need and demand for information on subjects associated with use and care of such equipment increase correspondingly. Service during the year was principally in the lines of rural electrification, farm structures, drainage, home utilities (water, light, heat, sanitation), and work with 4-H clubs.

**Rural Electrification**—Meetings, schools and demonstrations were the means used in reaching more than 3,000 rural families with rural electrification information. Undoubtedly, an additional 3,000 were reached by the programs of the home demonstration and county agents.

Maryland, with 32.7 percent of her farms served in June, 1937, moved from twenty-first place in 1936 to eighteenth place in 1937 in regard to the percentage of farms receiving "high-line" electricity.

The Rural Electrification Administration project developed in Southern Maryland, embracing Charles, St. Marys and Prince Georges Counties, should by June, 1938, make electricity available to 600 more rural families.

In conducting the work, the Service has cooperated with representatives of public utility companies and the REA. It is a contribution to the efficiency, health and living conditions of a large number of rural families and assists them in the planning and spending of considerable sums of money for wiring, lighting, electric equipment, and related farm machinery.

**Farm Structures**—The foundation of the farm structures project is the farm building plan service. This plan service was completely reorganized late in 1937.

Through a joint enterprise carried out by the U. S. Bureau of Agricultural Engineering and 12 Northeastern states, including Maryland, a book of plans was issued containing 117 designs for farm buildings, equipment and construction details. Copies of this plan book, together with a 22-page supplement containing plans that have proved popular in Maryland, were

distributed to county agents, and a considerable number were sold to architects, contractors and building material dealers.

An outstanding result of the building plan service, which has been operated for a number of years, is the marked tendency toward standardization in design, particularly in dairy structures. This has resulted in economies of construction and in a large measure the elimination of disputes between farmers and health inspectors regarding details of dairy barn and milk house design.

In response to specific requests, 436 blue print plans were sent to 274 persons in 1937.

**Drainage**—The outstanding accomplishment in the field of drainage in 1937 was the work of three CCC Drainage Camps located on the Eastern Shore. Operations were limited to maintenance and improvement of public ditches and no attempt was made to reclaim lands not now in agriculture. The purpose of the program was rather to rehabilitate farm lands on which, because of poor drainage, the production of crops is hazardous and uncertain. The Extension Agricultural Engineer was instrumental in having these camps allotted to Maryland and was given full charge of organizing their personnel and programs. During 1937, the camps cleared 3,100,530 square yards, or 641 acres, of ditch banks and channels, and excavated by hand, machine and explosives 546,116 cubic yards of material.

A gratifying feature of this work was the interest shown and support given by counties in which it was carried on, even to the extent of providing funds for prosecuting the work more rapidly.

Twelve surveys for tile drainage were made in 1937, involving 190 acres of land.

**Home Utilities**—Rural women were interested in many phases of home improvement, especially the kitchen and sanitary facilities. The home demonstration agents were active in this part of the program. By demonstrations and home visits, assistance was given in layouts of kitchens, electrical wiring, waste disposal, heating plants, house rebuilding, termite eradication, and water systems. These improvements, when carried out as directed, will greatly increase the value

of the buildings, improve the efficiency of the homes, and return to the families for the work done a good dividend in more healthful living and working conditions.

**Junior Activities**—Interest of 4-H club members in mechanical work grew rapidly. There were seven rural electrification clubs in as many counties, compared with three such clubs the preceding year. The program was similar to that of 1936.

## ECONOMICS AND FARM MANAGEMENT

CHANGING conditions during the year, as well as the great increase in numbers of farm people served by extension workers, greatly increased the opportunities for disseminating economic information.

Although the year was one of increased farm incomes generally, the outlook for the future, particularly in the latter half of the year, was clouded by uncertainty and farm people called upon the extension workers in increasing numbers for advice on their many economic problems.

With approximately 18,000 farmers, representing nearly two-thirds of the tillable land of the State, participating in the agricultural conservation program, and with large numbers of farm people cooperating in other programs, county agents and specialists were afforded wider contacts and a greater sphere of influence in dealing with economic and management phases of farming.

Assembling and disseminating basic economic information underlying conservation, marketing and other programs; using current economic information in dealing with management problems; conveying accurate and unbiased information regarding farm legislation; assisting individual farmers and 4-H club boys in keeping complete and accurate farm business records for use in planning their farms; summarizing economic factors and trends associated with each county in connection with planning state and county programs for the development of agriculture and rural life were major activities in the field of farm economics.

**Agricultural Conservation Program**—The Extension Economist was responsible in large measure for the organization and administration of the Agricultural Conservation program.

In its main features, the program of 1937 closely resembled that of 1936, but modification of some details made it much more attractive to truck growers, orchardists and small farmers.

There were 18,441 Maryland farms covered by worksheets in 1937, compared with 14,854 in 1936, which is an increase of 24 percent. During 1937, 63.4 percent of the farm land of the State participated in the program, compared with 51 percent in 1936.

In spite of a reduction in rate of payment, the total amount earned by Maryland farmers was greater than in the preceding year. Data are available for only 17 counties. For those counties, payments in 1937 amounted to $1,340,268 compared with $1,098,953.44 in 1936, or an increase of about 22 percent.

**Farm Management**—The definite trend on the part of farmers to give greater attention to the business phases of their operations continued during the year. The value and, indeed, the necessity for adequate records is constantly becoming more generally realized and assistance in that line is sought by increasing numbers. Such assistance takes the form of aid in keeping records in such manner as to be of greatest value and also in analyzing the records after they have been kept. The interest is shown by adults and also by 4-H club members.

Assistance was given to 233 farmers in keeping records, which was an increase of some 50 percent over the preceding year. The accounts were analyzed for 223 farmers. In addition, 1,373 farm accounts were kept in books furnished by the AAA, and without the detailed supervision afforded those enlisted in the Extension Service project.

**Outlook Information**—Before the season for planting and at the time when most farmers are planning their operations for the year, a summarized statement of economic conditions as they apply to Maryland farming is issued and distributed throughout the State. The situation and trends with respect to various commodities and crops are studied in all of their aspects. While such a statement is not designed to be a forecast, it is the aim to give farmers engaged in the several types of production such information as will enable them better to plan their operations for the coming year.

## RURAL SOCIOLOGY

WORK under this project, which was launched in 1936, assumed more definite character and a more aggressive program was undertaken. While most of the activities were with adults, the older young people were drawn into the picture at a number of points and some attention was given to 4-H club work.

**Rural Organization**—Since most of the extension program can best function through organized groups, attention was given to ways and means for increasing the effectiveness of rural organizations. The goals for the current year included a three-day conference of rural ministers to consider problems of rural organizations, leadership training, and the relationship of adult education activities of rural churches to the Extension Service; service to local, county and State-wide rural organizations in their membership and organization problems; instruction in effective organization procedure and leadership training to rural homemakers, ministers and young people; and assistance in setting up county councils of rural organizations to promote coordination and cooperation.

**Older Rural Youth**—Activities designed primarily to serve the needs of older rural young people were the definite aim of this phase of the work. Especial attention was given to the group in the period between passage of the 4-H club age and the time when they are ordinarily interested in adult extension work. Completion of the extension study of youth problems in Maryland was one of the goals during the year.

**Public Discussion Groups**—The need for public enlightenment concerning the issues of the day has been abundantly demonstrated in recent years. In Maryland, Granges, Farm Bureaus, P. T. A.'s, Homemakers Clubs, and others have requested help in putting on discussions of vital problems. As an adult education method suited to rural conditions, discussion groups merit active assistance. The program conducted this year was in the formative stage, but the foundation was laid for active and intensive work in that line.

## GENERAL ADULT EDUCATION

WHILE there is still great demand for educational activities of a general and diversified character, the expansion of extension work in certain lines, such as rural sociology and broader programs for women, has been in the direction of meeting the need. It was not possible in 1937 to conduct regular, systematic courses of instruction in cultural subjects at points away from the University, as was done in 1936. The need for development of such work increases, but before satisfactory progress can be made an administrative assistant should be secured to take charge of this phase of adult education and definite arrangements should be made with teachers who may be able to participate in the instruction.

Throughout the year, the services of Professor Charles S. Richardson, head of the Department of Speech, who devotes a small portion of his time to extension work, were in demand for addresses at banquets of rural organizations, homemakers' club meetings, and at a wide variety of gatherings. As in the past, splendid cooperation was received from those associated with other branches of the University and in that way the desire of rural people to develop themselves was served in a very limited way.

A committee on extension education is studying the situation, especially with respect to adult extension education, and it is hoped that ways and means may be found in the comparatively near future for service in this vast field, which is virtually untouched thus far, except as to the more practical phases with rural people.

### Maryland Crop Estimates

Needs and demands for accurate data regarding Maryland crops and agricultural products become greater each year. The new farm programs, the increasing importance of economic factors in successful farm management, the more general recognition of the necessity to plan in advance, both in individual programs and those for the State or Nation, all serve to emphasize the value of reliable, unbiased information of this character.

Maryland is fortunate in that a cooperative arrangement with the Division of Crop Estimates of the U. S. Department of Agriculture provides for trained statisticians stationed at the University of Maryland, who receive reports regularly from a corps of crop reporters throughout the State.

It is a pleasure to express the appreciation of the Service for the able and cordial cooperation given by Mr. J. A. Ewing and his associates at all times. His service has been of great value and there is great need to extend the work in this line, especially to the extent that estimates by counties may be obtained.

### State Horticultural Department

The Director of the Extension Service continued to direct the activities carried on under the State Horticultural Department, as in former years. The State Entomologist and State Plant Pathologist are responsible for the active prosecution of the work. Reports are made by them annually and are included in the biennial report of the University. The department is concerned with control features with respect to insects and plant diseases, as well as with inspections associated therewith. The fact that those charged with this work, together with their associates, also carry on their respective specialties in the extension field has proved advantageous from every standpoint.

## CONCLUSION

IT IS NOT possible in a report of this character to adequately discuss the many lines of work undertaken by the Service, and the progress made in the several lines during the year. Only the briefest review can be given of the activities carried on by specialists and agents.

There has been a natural growth and, with the contacting of thousands of additional farmers through the Agricultural Conservation Program, increased duties were placed upon extension workers in the effort to serve the larger number of constituents who have come to rely upon the Service for assistance. In addition, as the Farm Security Work is likewise coordinated with other adjustment activities, an increasing demand has come from farmers and farm families in that group.

All in all, it is the belief that the program in Maryland was carried on as efficiently and effectively as is possible with available personnel. A deficiency in supervision is recognized, especially in the extension field, and just as soon as funds are available it is the desire to appoint a District Agent, in order to provide more adequate supervision and guidance in the coordinated programs in the counties.

The County Committees under the Agricultural Conservation and Domestic Allotment Act have integrated their work with the farm organization committees in the respective counties, under the leadership of the county agents, and the whole program of farm assistance has gone forward, I believe, with a growing appreciation by the people of the State.

The Service continues to be indebted for the sympathetic cooperation of officials in charge of the Extension Service in the U. S. Department of Agriculture, as well as those in charge of the conservation programs. The confidence that exists between Federal and State agencies makes cooperation easy and effective.

We are all indebted to President H. C. Byrd for his interest in and support of all agricultural activities. Not only has he generously supported the program for improving agricultural facilities at the University, but likewise the development of the work throughout the State. I again wish to express my appreciation to him and to all of the leaders and workers for carrying forward a united program of service to the farmers and homemakers in Maryland.

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING SOURCES OF FUNDS USED FOR EXTENSION WORK. FISCAL YEAR ENDED JUNE 30, 1937

| PROJECTS | Total | Federal Funds | | | Offset Funds | Funds Not Used as Offset | | |
|---|---|---|---|---|---|---|---|---|
| | | Smith-Lever | Capper-Ketcham | Additional Cooperative | | College and State | County | Other |
| Administration | $26,537.09 | $17,471.53 | .... | .... | $3,165.22 | $4,729.76 | .... | $1,170.58 |
| Publications | 11,967.01 | 8,435.64 | .... | .... | 2,224.90 | 1,193.63 | .... | 112.84 |
| County Agent Work | 128,079.76 | 49,952.13 | $11,632.90 | $4,147.00 | 22,098.31 | 829.75 | $35,891.00 | 3,528.67 |
| Home Demonstration Work | 101,867.11 | 23,597.77 | 14,443.71 | 4,234.89 | 21,322.72 | 1,148.33 | 27,805.00 | 9,314.69 |
| Club Work | 11,432.30 | 8,698.40 | .... | 46.28 | 2,687.62 | .... | .... | .... |
| Nutrition | 3,554.33 | 2,193.43 | .... | 110.95 | 1,200.80 | 29.90 | .... | 19.25 |
| Clothing | 3,788.85 | 2,702.06 | .... | 75.00 | 983.82 | 25.93 | .... | 2.04 |
| Agronomy | 4,772.86 | 2,706.07 | .... | .... | 1,525.15 | 416.90 | .... | 124.74 |
| Animal Industry | 8,620.89 | 4,992.64 | .... | .... | 1,622.66 | 1,926.69 | .... | 78.90 |
| Horticulture | 10,332.47 | 8,401.20 | .... | .... | 1,645.50 | 267.52 | .... | 18.25 |
| Dairying | 9,916.14 | 2,633.40 | .... | .... | 1,430.90 | 4,163.48 | .... | 1,688.36 |
| Agricultural Marketing | 12,715.79 | 1,549.27 | .... | .... | 2,987.00 | 7,429.52 | .... | 750.00 |
| Imp. Poultry Husbandry | 7,619.14 | 4,026.92 | .... | .... | 1,792.58 | 1,799.64 | .... | .... |
| Entomological Extension | 13,591.94 | 1,318.00 | .... | .... | .... | 12,273.94 | .... | .... |
| Pathology | 6,655.66 | 2,162.84 | .... | .... | .... | 4,492.82 | .... | .... |
| Canning Crops | 7,993.91 | 2,302.76 | .... | .... | 3,321.82 | 2,369.33 | .... | .... |
| Farm Forestry | 1,653.45 | .... | .... | .... | 1,619.94 | .51 | .... | 33.00 |
| Poultry Marketing | 4,012.71 | 2,711.50 | .... | .... | .... | 345.52 | .... | 955.69 |
| Rural Engineering | 4,491.11 | 2,266.46 | .... | 1,935.88 | 101.46 | 128.93 | .... | 58.38 |
| Home Management | 2,601.76 | 2,552.89 | .... | .... | .... | 37.62 | .... | 11.25 |
| Economics and Farm Mgmt. | 4,540.91 | 2,031.55 | .... | 2,000.00 | 276.55 | 206.02 | .... | 26.79 |
| Apiculture | 2,491.23 | 1,091.86 | .... | .... | 460.00 | 939.37 | .... | .... |
| General Educational Extension | 4,345.71 | .... | .... | .... | .... | 1,264.67 | .... | 3,081.04 |
| Ext. Work in Rural Sociology | 829.42 | 559.52 | .... | .... | .... | 269.90 | .... | .... |
| Tobacco | 3,377.20 | 1,664.56 | .... | .... | 1,653.33 | 59.31 | .... | .... |
| Home Furnishing | 636.41 | 624.75 | .... | .... | 1.67 | 5.00 | .... | 4.99 |
| Total Expenditures | $398,425.16 | $156,647.15 | $26,076.61 | $12,550.00 | $72,121.95 | $46,353.99 | $63,696.00 | $20,979.46 |
| Unexpended Balance | .... | .... | .... | .... | .... | .... | .... | .... |
| Total | $398,425.16 | $156,647.15 | $26,076.61 | $12,550.00 | $72,121.95 | $46,353.99 | $63,696.00 | $20,979.46 |

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK. FISCAL YEAR ENDED JUNE 30, 1937

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unexpended Balance.... | .... | .... | .... | .... | .... | .... | .... | .... |
| Total..... | $398,425.16 | $156,647.15 | $26,076.61 | $12,550.00 | $72,121.95 | $46,353.99 | $63,696.00 | $20,979.46 |

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK. FISCAL YEAR ENDED JUNE 30, 1937

| Project | Personal Services | Labor | Supplies and Materials | Communication Services | Travel Expenses | Transportation of Things | Printing, Binding and Cuts of Publications | Furnishing of Heat, Light, Power, Water, and Elec. (Services) | Equipment | Miscellaneous | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Administration..... | $15,156.97 | $892.79 | $1,486.46 | $731.21 | $893.43 | $1,317.84 | .... | $741.25 | $884.12 | $4,433.02 | $26,537.09 |
| Publications..... | 6,332.41 | 1,049.13 | 1,351.11 | 1,090.36 | 70.73 | 17.06 | $2,038.23 | .... | 10.00 | 7.98 | 11,967.01 |
| County Agent Work..... | 99,254.31 | 49.60 | 3,050.97 | 185.19 | 25,251.51 | .71 | .... | 15.75 | 146.39 | 125.33 | 128,079.76 |
| Home Demonstration Work..... | 73,033.91 | 19.50 | 3,373.59 | 112.79 | 23,205.94 | 14.06 | 2.40 | 15.75 | 56.84 | 2,032.33 | 101,867.11 |
| Club Work..... | 9,180.84 | .... | .... | 4.79 | 2,246.67 | .... | .... | .... | .... | .... | 11,432.30 |
| Nutrition..... | 2,994.75 | .... | 76.50 | 23.90 | 445.65 | 3.53 | .... | .... | 10.00 | .... | 3,554.33 |
| Clothing..... | 3,269.00 | .... | 6.69 | 21.86 | 476.33 | 2.27 | .... | .... | 11.95 | .75 | 3,788.85 |
| Agronomy..... | 3,615.66 | 278.53 | 55.55 | 29.68 | 770.55 | 3.29 | .... | .... | 19.60 | .... | 4,772.86 |
| Animal Industry..... | 6,760.01 | .... | 41.29 | 1.83 | 1,673.34 | 4.72 | .... | .... | 139.70 | .... | 8,620.89 |
| Horticulture..... | 8,444.75 | .... | 26.11 | 13.50 | 1,826.49 | .... | .... | .... | 21.62 | .... | 10,332.47 |
| Dairying..... | 7,519.24 | .... | 15.11 | 138.64 | 2,171.57 | 1.58 | .... | .... | 2.00 | 68.00 | 9,916.14 |
| Agricultural Marketing.. | 10,881.34 | .... | 144.46 | 78.14 | 1,558.51 | .37 | .... | .... | 32.85 | 20.12 | 12,715.79 |
| Imp. Poultry Husbandry. | 6,378.34 | 2.75 | 82.47 | 45.87 | 1,084.49 | 6.75 | .... | 5.00 | 10.47 | 3.00 | 7,619.14 |
| Entomological Extension. | 8,815.50 | .... | 1,549.63 | 252.91 | 2,711.23 | 22.77 | .... | 5.00 | 33.10 | 201.80 | 13,591.94 |
| Pathology..... | 4,559.50 | .... | 109.34 | 31.89 | 1,918.59 | 1.61 | .... | .... | 32.75 | 1.98 | 6,655.66 |
| Canning Crops..... | 5,220.16 | 355.85 | 111.48 | 182.38 | 2,066.52 | 5.02 | .... | .... | 26.50 | 26.00 | 7,993.91 |
| Farm Forrestry..... | 1,284.37 | .... | .... | .... | 368.57 | .51 | .... | .... | .... | .... | 1,653.45 |
| Poultry Marketing..... | 2,100.00 | .... | 337.25 | 48.55 | 1,069.03 | 14.71 | .... | .... | 39.44 | 403.73 | 4,012.71 |
| Rural Engineering..... | 2,831.50 | 15.00 | 19.98 | 122.39 | 1,500.23 | 2.01 | .... | .... | .... | .... | 4,491.11 |
| Home Management..... | 2,225.00 | .... | 27.25 | 20.83 | 328.68 | .... | .... | .... | .... | .... | 2,691.76 |
| Economics and Farm Management.. ..... | 3,624.43 | .... | .... | 1.55 | 914.93 | .... | .... | .... | .... | .... | 4,540.91 |
| Apiculture..... | 1,407.5[illegible] | .... | .... | 2.74 | 1,079.20 | 1.79 | .... | .... | .... | .... | 2,491.23 |
| General Educational Ext. | 1,176.90 | 9.66 | 70.02 | 1.10 | 2,710.01 | 4.63 | .... | .... | 18.80 | 355.49 | 4,345.71 |
| Rural Sociology..... | 750.00 | .... | .... | .... | 79.42 | .... | .... | .... | .... | .... | 829.42 |
| Tobacco..... | 2,788.33 | .... | 3.33 | 33.75 | 550.69 | .... | .... | .... | 1.10 | .... | 3,377.20 |
| Home Furnishing..... | 430.00 | 1.50 | 6.93 | 9.83 | 163.15 | .... | .... | .... | .... | 25.00 | 636.41 |
| Total..... | $290,033.82 | $2,674.31 | $11,945.52 | $3,185.68 | $77,135.46 | $1,425.23 | $2,040.63 | $782.75 | $1,497.23 | $7,704.53 | $398,425.16 |